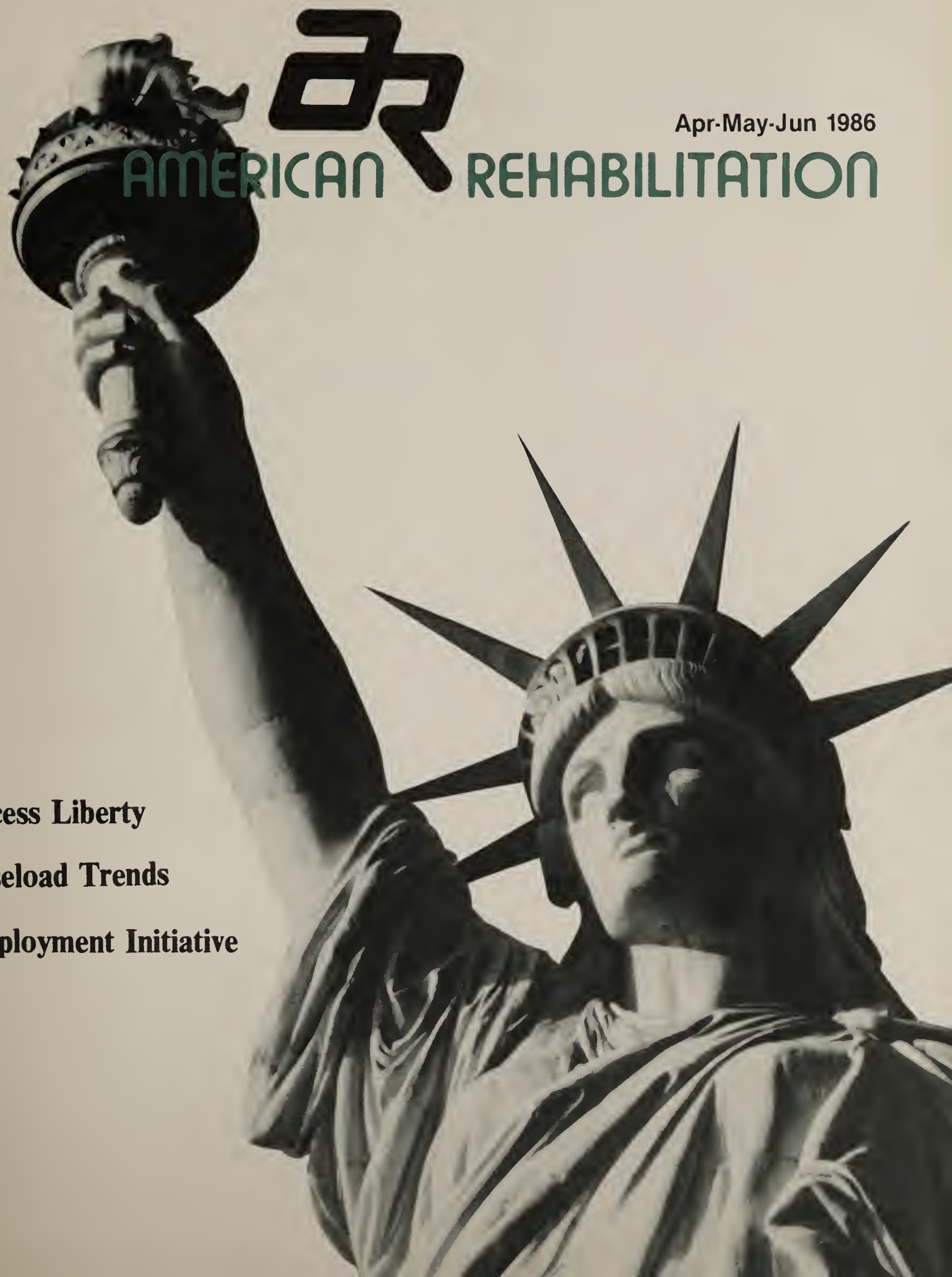




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Apr-May-Jun 1986

AMERICAN REHABILITATION

Access Liberty

Caseload Trends

Employment Initiative

AMERICAN REHABILITATION

Volume 12, Number 2

The weakest ink is better than the strongest memory.

Apr-May-Jun 1986

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U.S. DEPARTMENT OF EDUCATION

William J. Bennett, Secretary

OFFICE OF SPECIAL EDUCATION AND REHABILITATIVE SERVICES

Madeleine Will, Assistant Secretary

REHABILITATION SERVICES ADMINISTRATION

George A. Conn, Commissioner

Frank Romano, Editor

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Caseload Trends in the State-Federal Rehabilitation Program Through Fiscal Year 1985

George A. Conn

Fiscal year 1985 holds a special place in the history of the State-Federal Vocational Rehabilitation (VR) Program.

In terms of the most important caseload indicators—number of persons rehabilitated, the number and percentage of severely disabled persons rehabilitated, the rehabilitation rate, etc.—this was the first year in a long time when almost all indicators point upward.

Foremost among the gains experienced this year was the number of persons rehabilitated—227,652, or 0.8 percent more than in FY 1984. This marked the second consecutive annual increase in rehabilitations. It was over a decade ago that back-to-back annual increases in rehabilitations last occurred. The stage for these gains was set by (1) increases in the number of new applicants and persons newly accepted for services reaching four-year highs in FY 1985, and (2) continuing rises in the rehabilitation rates (the percent of active case closures that are rehabilitated).

The number of severely disabled persons rehabilitated—135,229—also increased for the second consecutive year, by 1.9 percent. Severely disabled persons accounted for 59.4 percent of all persons rehabilitated in FY 1985, the highest proportion ever attained and the eleventh increase in as many years. The first time the proportion was measured was in FY 1974, when only 31.6 percent of all

rehabilitated persons were severely disabled.

Another notable gain was seen in the rehabilitation rate—the proportion of closures from the active statuses resulting in successful rehabilitations. The rehabilitation rate for FY 1985 was 64.2 percent—compared to 63.2 percent in the prior year—and the highest in five years. This one percentage point difference accounted for an additional 3,600 rehabilitations. Similarly, the rehabilitation rate among severely disabled persons rose in FY 1985 from 61.0 to 62.2 percent, the highest level in seven years.

The number of persons newly applying for rehabilitation services in FY 1985 reached 606,526, an increase of 2.4 percent from the previous year. This was the highest volume of new applicants in four years.

Foremost among the gains experienced in this year was the number of persons rehabilitated—227,652, or 0.8 percent more than in FY 1984

The number of applicants whose cases were awaiting an eligibility decision on September 30, 1985, came to 245,776, a substantial 6.0 percent increase from the same date one year before, and the highest level in four years. In absolute terms, the annual gain in new applicants came to nearly 13,900 persons, a number that will help to support new acceptances and persons served in FY 1986 and, to a

lesser extent, the number to be rehabilitated.

The number of persons determined eligible for rehabilitation services in FY 1985 came to 353,095, an increase of 1.4 percent from FY 1984, the highest intake of new cases in four years. Although this was only the third annual increase in 10 years, it was the second in three years, indicating that the long-term and, at times, sharp decline in acceptance of new clients has been halted.

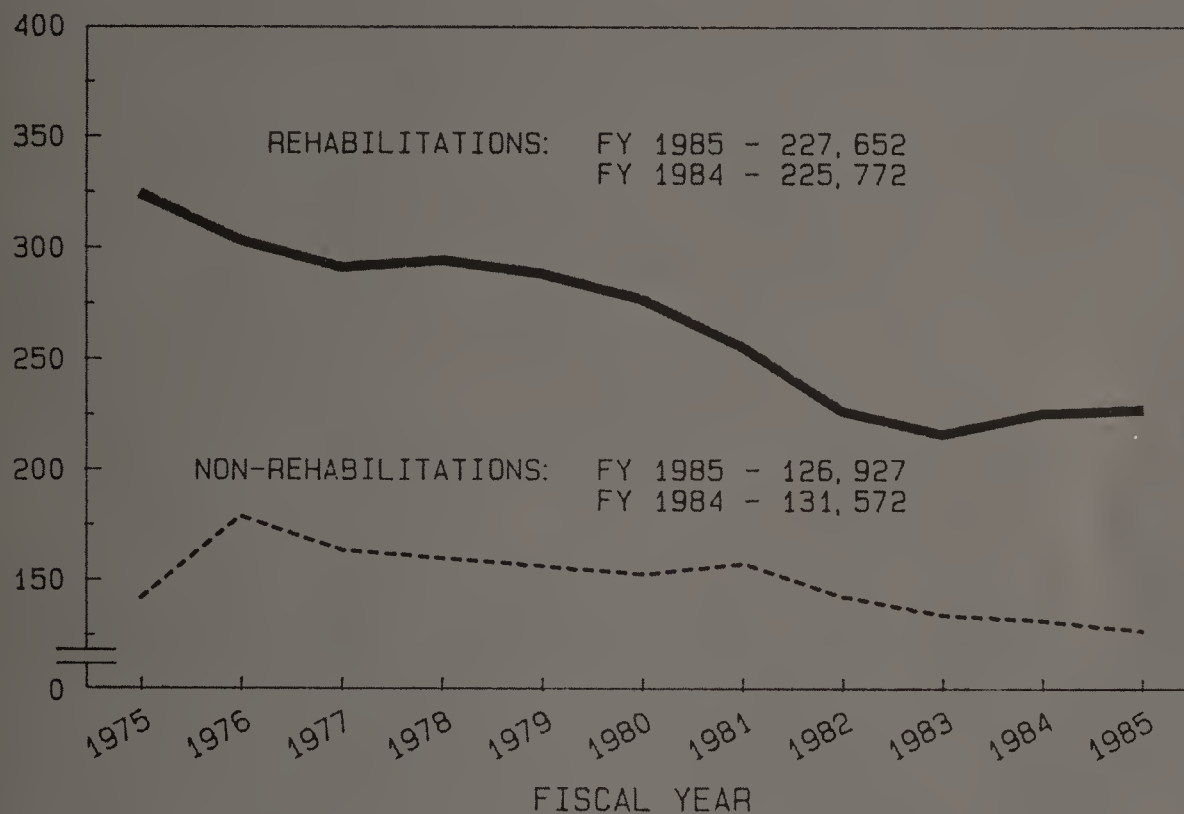
The 353,095 persons accepted for services in FY 1985 accounted for 59.5 percent of the 593,790 persons whose eligibility for services was determined that year. This percentage, referred to as the acceptance rate, was the highest in the last 10 years, and represents the fourth consecutive annual increase.

The acceptance of severely disabled persons into the VR program increased by 3.1 percent to 219,120 in FY 1985, the third consecutive annual gain, while their proportion to all new acceptances reached its highest level ever—62.1 percent.

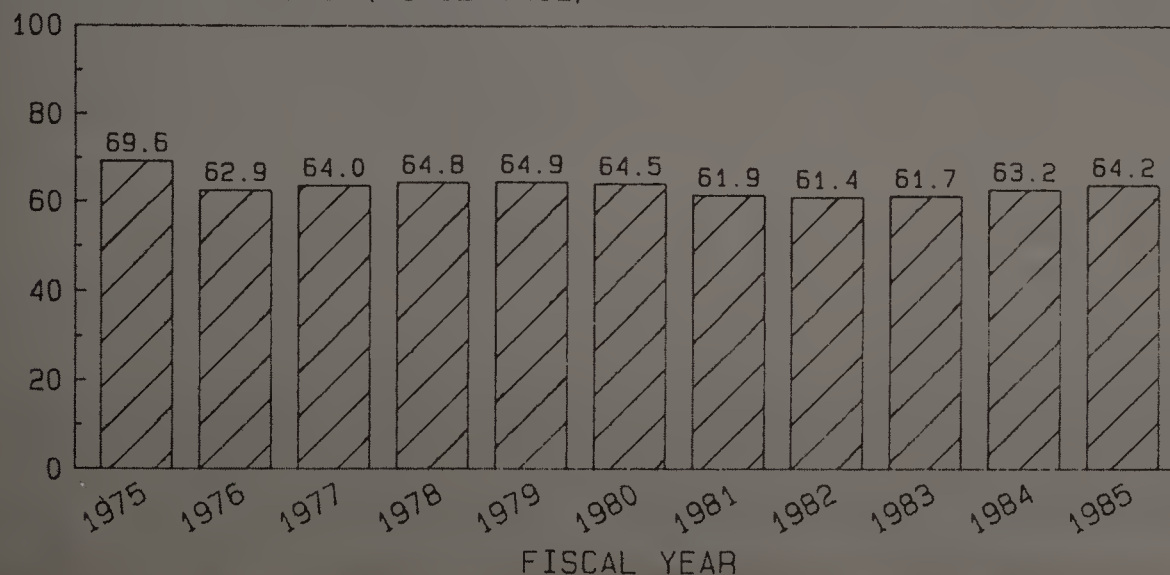
Every other caseload measure relative to severely disabled persons also increased in FY 1985. The number of severely disabled persons served, for

FIGURE A.
 NUMBERS OF PERSONS REHABILITATED AND
 NOT REHABILITATED, AND REHABILITATION RATES,
 FY 1975 - FY 1985

NUMBER (000)



REHABILITATION RATES (PERCENTAGE)



**Vocational rehabilitation program expenditures in current and 1967 dollars,
and persons served, Fiscal Years 1967—1985**

Fiscal Year	Actual expenditures ¹ (\$ million) (1)	Consumer Price Index ² (2)	Deflated expenditures (\$ million—1967) ((1) ÷ (2)) 100 (3)	Persons served (000) (4)
1985	1,447.4	322.2	449.2	931.1
1984	1,359.9	311.1	437.1	936.2
1983	1,253.8	298.4	420.2	938.9
1982	1,166.6	289.1	403.5	958.5
1981	1,240.5	272.4	455.4	1,038.2
1980	1,257.0 ³	246.8	509.3	1,095.1
1979	1,238.2	217.4	569.5	1,127.6
1978	1,152.5	195.4	596.6	1,168.0
1977	1,111.0	181.5	612.1	1,204.5
1976	1,062.0	170.5	627.7	1,238.4
1975	1,021.3	161.2	633.5	1,244.3
1974	887.5	147.7	594.1	1,201.7
1973	772.6	133.1	580.5	1,176.4
1972	727.2	125.3	580.4	1,111.0
1971	655.7	121.3	540.6	1,001.7
1970	578.7	116.3	497.6	875.9
1969	473.4	109.8	431.2	781.6
1968	393.1	104.2	377.2	680.4
1967	313.7	100.0	313.7	569.9

¹ Includes Federal and State expenditures for Basic Support and, when applicable, for Innovation and Expansion grants and Federal expenditures under Social Security Trust Fund and Supplemental Security Income funds.

² All urban consumers index—average for calendar year.

³ Expenditures estimated from amounts appropriated.

example, rose by 2.7 percent to 580,863—the second increase in a row after four years of losses. Their proportion to all persons served was 62.3 percent, the highest level ever. Also, the number of severely disabled persons still receiving services on the last day of the fiscal year (September 30) increased by 4.5 percent to 363,497—the highest level in five years. Severely disabled persons represented 63.0 percent of all the persons still receiving

services on September 30, 1985, the highest proportion recorded, compared to 60.1 percent on the same date one year earlier.

In terms of the total resident population in the 50 states and the District of Columbia, state agencies rehabilitated 95 clients for every 100,000 persons in the population on July 1, 1984, the same rate as for FY 1984. This was the second year in a row without a decrease for this meas-

urement after five consecutive years of declines.

In the event that a judgment on eligibility for rehabilitation services cannot be readily made, state agencies can provide selected services to individuals for a period not to exceed 18 months to see if these persons have rehabilitation potential. The process of providing these selected services is referred to as *extended evaluation*. There were 49,508 persons in receipt

Severely disabled persons accounted for 59.4 percent of all persons rehabilitated in FY 1985, the highest proportion ever attained and the eleventh increase in as many years.

of extended evaluation at some time during FY 1985, an increase of 2.3 percent from FY 1984 for the first annual gain in seven years. Overall, only about one applicant or client in 30 spent any time in extended evaluation in FY 1985.

The total number of persons whose cases were carried by state agencies at some time in FY 1985 as applicants, extended evaluation cases or active cases came to 1,440,239, a gain of 0.4 percent from the total agency workload in the previous year. This marked the first annual increase in overall agency workloads in 10 years. The largest single contributing factor to the workload total was the influx of new applicants.

Due to the lowered rates of inflation in 1983-1985, state agencies have benefited from increases in the purchasing power of the rehabilitation dollar. The agencies have responded by halting long-term declines in new applicants and new acceptances and

rehabilitating more people in back-to-back years for the first time in over a decade.

A chart (Figure A) and table (Table 1) are presented to demonstrate the strong, long-term relationship between the purchasing power of the rehabilitation dollar and the number of

The rehabilitation rate among severely disabled persons rose in FY 1985 from 61.0 to 62.2 percent, the highest level in seven years.

persons served in the state-federal program. The purchasing power of program expenditures is expressed in terms of constant 1967 dollars and is seen to have increased in every year from 1968 to 1975. In the same time span, the number of persons served increased each year. All-time highs for both purchasing power and persons served were reached in 1975. For seven years thereafter (through 1982), both measures declined. Purchasing

power fell because of a combination of lowered federal outlays and high rates of inflation, while persons served fell not only because of the purchasing power decline, but also because services were being directed to the much more costly severely disabled clientele.

Purchasing power has increased again since 1982 essentially because of the low rates of inflation. This increase has not been substantial enough, however, to turn around the continuing decline in the number of persons served which occurred for the tenth consecutive year in 1985. Never-

theless, the rise in purchasing power still had a positive impact on persons served as the declines in the latter in both 1984 and 1985 were the lowest in a decade (well less than one percent per year).

George A. Conn is Commissioner, Rehabilitation Services Administration.

Technology Center Opens for Blind

Computerized braille, voice output devices and large-print displays are among the high tech equipment and software programs displayed at the National Technology Center, established by the American Foundation for the Blind to help blind and visually impaired people participate fully in the computer age.

The center focuses on high technology research and development,

evaluation and database services to enable blind people to access and work with the same information as their sighted peers on the job and at home, school and leisure.

The facility is designed to serve as a resource center for blind and visually impaired people as well as professionals in the blindness field, employers, researchers, and companies developing and manufacturing special aids and devices.

The National Technology Center,

located at AFB's New York headquarters, was made possible in part by grants from the United Parcel Foundation; the Jesse Ball duPont Religious, Charitable and Educational Fund; New York Community Trust; and the IBM Corporation.

For further information, contact Elliot Schreier, Director, National Technology Center, American Foundation for the Blind, 15 W. 16th St., New York, New York 10011. Telephone: (212) 620-2020.

Access-Ability To Liberty & Freedom

Thelma Schmones

During 1981, you may recall the Continental Quest as part of the activities to celebrate the International Year of Disabled Persons. Philip Carpenter and George Murray rolled cross-country for 105 days and found themselves at 4 a.m. in Jersey City in a parking lot at a hamburger stand waiting for an escort through the Lincoln Tunnel to New York City, their final destination. When asked what they would like to see while in that part of the country they replied "The Statue of Liberty." Unfortunately, such a visit was not feasible inasmuch as the Statue was not accessible. And thus an idea was born!

Richard Bernard, then the Director

formed the Access-Ability Committee which has been meeting ever since to make recommendations to the Statue of Liberty-Ellis Island Foundation, Inc. Headed by Lee Iacocca, the Foundation is responsible for raising the funds for the restoration of these national treasures.

The Committee has held numerous meetings at the Statue and Ellis Island to review the sites, examine drawings, and meet with architects, museum directors, audio-visual specialists, and Statue staff members. Recommendations for change have been made which will enrich and enhance visits to Liberty and Ellis Islands by individuals with visual, auditory and

from the lobby to the mezzanine will enable people to visit the museum and the promenade deck.

- The new museum will offer tactile displays, including a model of the Statue. Signs will be enlarged and non-glare glass will be used.

- All films will be captioned and qualified sign language interpreters will be available. TDD's will be available upon request.

- Video monitors may be placed in various locations for viewing the area between the pedestal and crown which is too narrow for the installation of an elevator.

- Handrails, elevator panels with raised lettering, accessible telephones, water fountains, and lavatory facilities are also part of the plan.

Liberty Island will also have changes:

- Interconnecting paved walkways between the perimeter of the island, the Statue, the Concession Building, and Administration Services.

- Concession Building will modify the Food Service area, patio tables and restrooms at a level convenient for wheelchair mobile guests.

Ellis Island will be undergoing major extensive renovations aimed at its centennial in 1992. Historically, despite its state of disrepair, it offers a living framework upon which to recreate memories and an information bank which will serve as a core of knowledge about the growth and development of this great country for visitors and students. A poignant aspect of these recommendations for access is reflected in the fact that people with a disability who had wished

Recommendations for change have been made which will enrich and enhance visits to Liberty and Ellis Islands by individuals with visual, auditory and mobility limitations, children as well as adults.

of the New Jersey Governor's Office of the Handicapped, a member of Disabled American Veterans and currently on the staff of the New Jersey Division of Vocational Rehabilitation, took the ball and ran with it! Discussions followed with the U.S. Department of Interior, National Park Service, Division of Special Programs and Populations; Statue of Liberty staff; representatives of individuals with disabilities; and this author, representing the Rehabilitation Services Administration, Department of Education, Region II. In 1982, the Department of the Interior

mobility limitations, children as well as adults. All of the recommendations have been accepted.

Some of the most exciting aspects of these changes are:

- The walkway to the Statue will lead directly to the Statue and will be wide enough for wheelchairs. Up to now, persons in wheelchairs had to use a back door and rouse a staff member to open that access route.

- A Visitor's Information Desk will provide literature and cassettes with recorded tour and accessibility information.

- The installation of an elevator



to enter the United States through Ellis Island were rejected and *sent back to the country they wished to leave.*

Some of the accessibility features included in the plans are:

- Restoration of the ramp and handrail that leads from the ferry slip to the baggage room.

- The baggage room will contain guides and exhibits to assist in the exploration of the building; a tactile model will be included.

- An elevator will be made available to carry visitors to the Great Hall for those who do not wish to climb the central staircase that was the only previous access to registration.

- Two fully equipped theaters will be rebuilt for showing films about the Statue and Ellis Island. Audio-visual devices and wheelchair accessibility features are part of the plans.

- Accessible educational facilities will be incorporated for the study of the history of immigration; tapes of research and other materials will be included.

The Foundation's overall financial goal for the Statue and Ellis Island is \$230 million. The accessibility features are estimated at \$3 million. Disabled American Veterans have already made a most laudable commitment of \$1 million. Materials, films and other resource materials to generate funds are available from the Statue of Liberty-Ellis Island Foundation, c/o Don Kent, Suite 1205, 101 Park Avenue, New York, New York 10178. Organizations and individuals can earmark their contributions to "Accessibility" and assist in this special feature.

The efforts of the Committee have
(Continued on page 27.)

NEWS, NOTES, ANNOUNCEMENTS

Perlman Receives Courage Award

Internationally-renowned violinist Itzhak Perlman is the recipient of the 1986 National Courage Award, it was announced recently by Courage Center.

The Minneapolis-based United Way rehabilitation organization presents the award each year to a person who has had a profound national impact on attitudes toward and services provided for people with physical disabilities.

Mr. Perlman will receive the award at a luncheon May 21 at the Minneapolis Park Plaza Hotel.

Disabled from polio suffered when he was four years old, Mr. Perlman often speaks publicly about the rights of people with physical disabilities. He has refused to play some concert halls because of lack of accessibility and advises architects about designing barrier-free buildings. He also serves on boards of hospitals for disabled children.

The National Courage Award is made possible by funds provided by Rose and Jay Phillips of Minneapolis. Winners receive a miniature bronze casting replica of the Paul Graniund statue "Spirit of Courage" which stands at Courage Center.

Past winners have included disabled artist, musician and lecturer Joni Eareckson Tada; Robert and Dorothy DeBolt, who are adoptive parents of several disabled children; disabled former head of the Veterans Administration Max Cleland; and George A. Conn, Commissioner of the Rehabilitation Services Administration.

Courage Center is a nonprofit organization that provides rehabilitation and independent living programs for children and adults with physical disabilities and speech, hearing and vision impairments. Last year, more than 13,000 people from throughout the United States benefited from Courage Center services.

PVA Awards Neural Stimulation Grant

The Paralyzed Veterans of America's Spinal Cord Research Foundation has awarded a grant to J. Thomas Mortimer, Ph.D., and Ph.D. candidate James Sweeney of Case Western Research University, Cleveland, Ohio, for their work to restore function to bladders of persons who are paralyzed.

Objective of this research is to develop an electrical stimulation technique that can be used safely and effectively to treat bladder paralysis. Urinary complications of bladder paralysis is a major health problem facing a majority of patients with spinal cord injury.

CSU Conference

The second annual conference on "Computer Technology/Special Education/Rehabilitation" sponsored by California State University, Northridge, is scheduled for October 16-18. For more information, contact Dr. Harry Murphy, Office of Disabled Student Services, California State University, Northridge, 18111 Nordhoff Street, Northridge, California 91330. Telephone (818) 885-2578.

Wheelchair Games Scheduled For June

The Sixth Annual Veterans Wheelchair Games will be held June 24-28 at the University of Texas at Arlington. Co-sponsored by the Veterans Administration and the Paralyzed Veterans of America, the games are open to all veterans who use wheelchairs for mobility. For information, contact: Terrance J. Wickman, games coordinator, Dallas Veterans Administration Medical Center, Attention: Recreation Service (11K), 4500 So. Lancaster Road, Dallas, Texas 75216. Telephone: (214) 372-7012.

Conference Set on Attitudes

Hofstra University's national conference on "Attitudes Toward Persons with Disabilities" is scheduled June 4-6 at the university in Hempstead, New York.

Topics include attitudes of disabled persons, members of their family, friends, and persons in the community; attitudes of rehabilitation personnel, service providers, and teachers; effects of communications and the media; attitude measurement; disability hierarchies, attitudes and employment; and attitude change procedures.

Dr. Harold E. Yuker, internationally known for the development of the "Attitude Toward Disabled Persons Scale" and his research in the area, is conference director.

Full details, including a complete program, registration and housing information and forms are available from: Attitude Conference, HUCC, Hofstra University, Hempstead, New York 11550. Telephone: (516) 560-6600.

RI Conference Set

The Eighth Asia and Pacific Conference of Rehabilitation International will be held September 15-20 in Bombay, India, on the theme: "Rehabilitation: Attitude and Reality."

Rehabilitation Coordination India, the RI affiliate, is organizing the conference which is expected to attract delegations from most countries in the widespread Asia and Pacific region.

The conference will feature progress reports from some 20 countries in the region and will focus on three subthemes: prevention and early detection, awareness and participation, and employment and income generation.

National Wheelchair Softball Games Scheduled

The Minneapolis suburb of St. Louis Park will be the site of the 10th annual National Wheelchair Softball Tournament September 5-7, 1986.

The tournament is an official St. Louis Park Centennial activity and is sponsored by the St. Louis Park American Legion and Auxiliary and Courage Center, a United Way organization serving people with physical disabilities and speech, hearing and vision impairments.

The round-robin tournament will attract up to 16 teams, including the two-time defending champion Courage Rolling Gophers, sponsored by Courage Center.

For further information, contact Dr. Robert Szyman, Director of Sports, Physical Education and Recreation, Courage Center, 3915 Golden Valley Road, Golden Valley, Minnesota 55422. Telephone: (612) 588-0811.

Second Computer Conference Set

The second annual national computer conference, "Computer Technology/Special Education/Rehabilitation," is scheduled October 16-18, 1986, at the University Student Union, California State University, Northridge. More than 1,000 persons attended the 1985 conference.

A special three-hour workshop on October 16 will be "Selecting the Appropriate System as a Blind or Partially Sighted Person." This hands-on presentation will familiarize blind and partially sighted consumers, special educators and rehabilitation personnel with the latest computer technology available to visually limited consumers.

For further information contact Dr. Harry Murphy, Conference Coordinator, Office of Disabled Student Services, California State University, Northridge, 18111 Nordhoff Street, Northridge, California 91330. Telephone: (818) 885-2578.

AHSSPPE Plans Annual Conference

The Association on Handicapped Student Services Programs in Post Secondary Education is holding its ninth annual conference at the Sheraton Harbor Island East in San Diego, California, July 23-26.

Some of the topics scheduled for workshops include computerization, latest technology in the field, learning disabilities, transition strategies, personal/professional growth, and understanding legislation and the legislative process.

For further information contact Jane Jarrow, P.O. Box 21192, Columbus, Ohio 43221. Telephone, (614) 488-4972 (Voice/TDD).

Institute Set for July 7-11

The University of Southern Maine will sponsor an institute, "Curriculum for the Hearing Impaired," July 7-11 at the Governor Baxter School for the Deaf on Mackworth Island, Maine. The institute is designed for teachers, administrators and language specialists interested in developing skills to provide quality education for deaf children. Further information is available through Barbara McGough, University of Southern Maine, 400 Bailey Hall, Gorham, Maine 04038.

Easter Seal Reissues Bookmark

The National Easter Seal Society has released a new version of its popular bookmark for students, "When You Meet a Classmate Who has a Disability."

The bookmark, one of the Easter Seal organization's most popular public awareness resources, gives school-aged children without disabilities tips for understanding, assisting and enjoying the friendship of those who have disabling conditions of various kinds.

Almost a million of the original bookmarks were distributed during its first five-year run. Single copies of "When You Meet a Classmate Who Has a Disability," suitable for readers from third grade up, are free with a self-addressed, stamped, business-size envelope.

Quantity rates are: \$9.00 per 100, \$40.00 per 500, and \$75.00 per 1,000. Orders should be sent to the National Easter Seal Society, 2023 W. Ogden Avenue, Chicago, Illinois 60612.



TIRR Forms Rehab Network

The Institute for Rehabilitation and Research (TIRR) has signed affiliations with the Methodist Hospital Health Care System, Inc., and with the Hermann Hospital Estate to facilitate the establishment of a rehabilitation network of services for persons with severe and disabling injuries and illnesses.

The agreement with the Methodist Hospital, TIRR will make its expertise in medical catastrophic and restorative services available to the system's 20 hospitals. TIRR will actively participate in a state-of-the-art rehabilitation service program network that will benefit affiliates, patients and patients' families. The Methodist Hospital Health Care System, Inc., will make management, administrative, marketing, and communications as well as its joint purchasing system available to TIRR.

The agreement with Hermann Hospital Estate will bring together TIRR, Herman Hospital and Affiliated Hospital System (AHS), a unit of Hermann Hospital Estate, and a network of 35 rural hospitals. TIRR will be the primary referral institution for Hermann Hospital and AHS hospitals for Hermann referred patients needing diagnostic, medical or surgical services after they have completed their rehabilitation and returned to the community.

TIRR, Hermann and AHS will share in the development of patient care programs, research, education, and consulting services to support this network. The patient care programs may involve inpatient, outpatient and home health rehabilitation services in Houston and AHS hospitals.

The Methodist Hospital Health Care System, Inc., is the largest not-

for-profit health care system in the Southwest. It includes 20 hospitals with a total of 4,750 beds. The system has affiliations with hospitals worldwide as well as in the Southwest. The Methodist Hospital in Houston, Texas, is the largest not-for-profit, nongovernmental hospital in the United States.

Hermann Hospital, a 908-bed facility, is the primary tertiary care hospital for the University of Texas Medical School at Houston. Affiliated Hospital System, established by the Hermann Hospital Estate in 1980, is the largest, nonprofit multi-hospital system in Texas.

TIRR, a 115-bed full service rehabilitation hospital, has treated more than 40,000 people with spinal cord injury, stroke, head injury, amputation, multiple sclerosis, cerebral palsy, muscular dystrophy, and other neuromuscular disorders. A recognized leader in the field of rehabilitation medicine, TIRR has provided services for people from every state in the union and from 33 countries.

Customized Tours For Disabled Scheduled

The concept of "customized site visiting tours for people with physical impairments" is being test marketed by International Tours of Mill Valley and Access/Abilities, a resource organization for physically disabled persons.

A premier tour of the Bay Area, Highway 1, and Southern California has been customized for people who are blind or severely visually impaired, their sighted companions and guide dogs. The tour will begin May 1 in San Francisco.

Museums, art galleries, shopping complexes, and local attractions have been selected which are especially sensitive to the needs and desires of this

distinctive group of tourists.

For four days and nights visually impaired travelers will touch, hear, feel, experience, and taste their way around the Bay.

Attractions selected for the tour include the De Young Museum, the Academy of Sciences, Steinhart Aquarium, the Exploratorium, cable cars, Golden Gate Ferries, the Golden Gate Bridge, and shopping areas such as Ghiradelli Square, the Cannery, Pier 39, and Sausalito, including the Bay Model built by the U.S. Corps of Engineers.

Two days will be spent in Marin and Sonoma Counties exploring Muir Woods and Sebastiani Winery.

Those continuing on the tour to Southern California will experience Monterey Peninsula, Carmel, Big Sur, Cambria and Hearst Castle, Solvang, Santa Barbara, and the coastal cities south to Los Angeles before spending three days and nights visiting attractions in and around Los Angeles.

Plans are underway for similar tours designed specifically for people with hearing or mobility impairments.

For reservations and information, call Ms. Ellen Lieber, Access/Abilities, P.O. Box 458, Mill Valley, California 94942. Telephone: (415) 388-3250.

Westbrook Named TCB Director

Pat D. Westbrook has been named the new executive director of the Texas Commission for the Blind. The sixth director in the commission's 54-year history, Mr. Westbrook replaces John C. Wilson, who resigned the post last January after serving as executive director for over three years.

SCRF Grant Studies Drug Reactions

Paralyzed Veterans of America's Spinal Cord Research Foundation has awarded a second-year grant to Stuart Feldman, Ph.D., of the University of Houston College of Pharmacy, for his work to examine the response of spinal cord injured persons to drugs used to treat uncontrolled muscle spasms.

Currently, very little is known about how spinal cord injury affects the way in which the body metabolizes drugs. Dr. Feldman will continue to study the response of spinal cord injured patients to antibiotics and to dantrolene, a drug used to treat spasticity. This research is important because of the long-term need for these drugs and the potential side effects.

Senator Bumpers: Migel Awardee

The American Foundation for the Blind (AFB) has named U.S. Senator Dale Bumpers of Arkansas to receive the 1985 Migel Medal honoring his leadership role in national efforts to improve the quality of life for blind and visually impaired Americans.

The Migel Medal, established in 1937 by AFB's first president, M.C. Migel, honors professionals and volunteers whose dedication and achievements have significantly improved the lives of blind and visually impaired people. Two medals are awarded yearly, one to a professional in the blindness field and one to a layperson.

Senator Bumpers, who received the Migel Medal in the layperson category, was honored at a special award ceremony last February at the Arkansas School for the Blind in Little Rock.

Gallaudet Ranks Third in its Class

College presidents across the country ranked Gallaudet College, Washington, D.C., third in its class among 74 Eastern schools, according to a survey published in *U.S. News and World Report*. College presidents were asked to pick the top five undergraduate schools similar to their own, according to size and academic offerings.

They were also asked to consider such factors as strength of curriculum, quality of teaching, relationship between faculty and students, and the atmosphere for learning.

Nine categories of schools were selected, using guidelines provided by the Carnegie Foundation for the Advancement of Teaching. The categories are: national universities, comprehensive institutions, smaller comprehensive institutions, national liberal arts colleges, and regional liberal arts colleges.

In the category of smaller comprehensive institutions/East, Hood College in Frederick, Maryland, received the highest rating, followed by Alfred College in Alfred, New York, and Gallaudet.

In the last *U.S. News* survey, conducted in 1983, Gallaudet tied for fifth place with Concordia College, New York, in the category of regional liberal arts colleges.

Mobile Goodwill Signs Agreement with NCTRH

Goodwill Industries of Mobile Area, Inc., has signed a cooperative agreement with the National Council for Therapy and Rehabilitation through Horticulture (NCTRH) to operate an Area Project With In-

dustry Office within the State of Alabama.

A nationwide competition among a number of capable applicants led to Goodwill's selection as a subgrantee of the Horticulture Hiring the Disabled (HHD) Transitions grant from the Administration on Development Disabilities, Office of Human Development Services, U.S. Department of Health and Human Services.

HHD Transitions is a national demonstration service model designed to enhance and expand employment opportunities for developmentally disabled (DD) young adults preparing to leave the public education system. The project will use an industry based adaptation of the Project With Industry model, designed to unite and coordinate the activities of industry employers, vocational and special education communities, rehabilitation and adult service providers, job development and placement personnel, and DD youth.

The coalition seeks to create exemplary models for transition services from school programs to employment. The 36-month project will establish two demonstration sites which will serve 210 DD youth and place 105 into permanent employment.

10th Annual ADED Conference Set

The Association of Driver Educators for Disabled (ADED) has scheduled its 10th Annual Conference for September 17-19, 1986, in Phoenix, Arizona.

Further information is available from Cindy Claus, OTR, ADED Conference Host, Phoenix Baptist Hospital, Adaptive Driving Center, 6025 North 20th Avenue, Phoenix, Arizona 85015.

Promoting the Employment Initiative Through Projects of National Significance

Jean Elder, Ph.D.

In November 1983, President Reagan made a major step towards improving the employment options for persons with developmental disabilities by signing into effect an Employment Initiative for Persons with Developmental Disabilities. This new initiative involved developing employment opportunities in the competitive employment sector through pledges and other job commitments from private employers. In the period since the signing of this important proclamation, more than 82,000 persons with developmental disabilities have been placed in jobs in the integrated, competitive labor market. A number of factors contributed to this success, but the purpose of this article is to report on the special support provided by the Administration on Developmental Disabilities (ADD), Office of Human Development Services, Department of Health and Human Services. ADD was given responsibility for coordinating activities in response to the employment initiative.

One of the major activities of ADD was the allocation and earmarking of discretionary funds for projects and programs designed to improve and expand the quantity and quality of employment-related services. This was achieved through cooperative activities as well as direct funding.

the discretionary grant money was to jointly fund demonstration projects with the Department of Education's Office of Special Education and Rehabilitative Services (OSERS). In an effort to intensify and expand cooperative employment-related activities between two major federal partners, ADD and OSERS, an innovative interagency cooperative agreement was signed in May 1985, which provided for joint funding of a Supported Employment Demonstration Project series in 10 states. These states—Alaska, Arizona, California, Kentucky, Maryland, Michigan, Minnesota, Utah, Virginia, and Washington—are expected to demonstrate the feasibility of statewide networks of supported employment programs.

Designed as five-year projects, the programs involve extensive interagency cooperation at a level never before conceptualized. The state rehabilitation agency is most often teamed with the state mental retardation agency in providing employment-related services to persons with severe disabilities on an extended basis. State and local special education agencies and vocational education agencies also are frequent partners in this innovative activity.

In addition to the cooperative project funding, ADD has awarded a total of 35 grants representing federal funds exceeding \$3.3 million for Proj-

ects of National Significance over the past three years in an effort to ensure that best methods and techniques are available and known to agencies, organizations and individuals involved in implementing the employment initiative. The projects involved developing new techniques and service systems, implementing demonstrated techniques in new environments, and addressing special problems in the services delivery system.

The categories of projects included: Job match and job information networks, employee assistance and employer participation projects, programs for transitioning students from school to work, programs focusing on rural area services, projects targeted on service occupations, programs reviewing training and service delivery technologies, and programs serving specific disability categories within the population of developmental disability.

Some of the projects have been completed and final reports are being analyzed; other projects are continuing, some with extended funding from a variety of private, and local or state government resources. In the immediate future it is hoped that the significant findings from all of these projects can be made available to interested organizations and agencies. The need for dissemination is reflected in the continuing inquiries through

telephone calls and other communication coming to the ADD offices.

Most of the projects have multiple outcomes. For example, training and employment and transition and supported employment are most often linked in service delivery. The following represent a summary of the individual project objectives by primary focus.

Job Match and Job Information Networks and Systems

An analysis of best methods in job match and job placement is being developed through private employer interviews, state-of-the-art evaluation of existing systems, and consideration of system revision (to accommodate persons with developmental disabilities with no prior work experience).

Another project is developing an employer-based information network, with a "hotline" for employer inquiries and job offers; an information dissemination system to assist in following up new developments in the Employment Initiative; and an employer-targeted media campaign.

A project to apply the Projects With Industry (PWI) concept, with demonstrated success in placing persons with disabilities, to the more challenging task of placing persons with developmental disabilities has been initiated through the Project Independence Program.

Epilepsy Foundation of America will replicate a model program of counseling and self-directed job development techniques, used successfully for persons with epilepsy, and will disseminate guidelines and training materials.

Employee Assistance Programs and Employer Participation Projects

Two projects (in Boston and West Virginia) are exploring the existing

Employee Assistance Programs (each from a different approach) as a possible employer-based system to address the ongoing support requirements of many employees with developmental disabilities. They provide aid in retaining employment and use counseling techniques now being applied to employees with other special problems through more than 5,500 EAP systems nationwide. The EAP system is seen as responsive to the need for continuing support on the job—a service for which funding and local community resources are not often available.

Another project involves employer-assisted job search and is designed to expand and replicate an effective method of involving employers voluntarily to teach job candidates better job application and interviewing techniques.

Programs to Serve Rural Areas

Program services and systems to meet the special needs of persons in rural areas with minimal resources are being developed on a demonstration or pilot basis in Sevierville, Tennessee; Benson, Utah; and in rural areas of Hawaii, Oregon, and Virginia. Examples of the project approaches include a bakery, an automobile preparation operation and a crew-labor operation to maintain parks and playgrounds.

Transitioning Services and Employment

The Association For Retarded Citizens (ARC) has conducted seminars and training programs throughout the nation to explore the feasibility of developing transitional service systems through private, nonprofit, community-based organizations, e.g., local ARC operations. The project will examine the appropriateness and willingness of local organizations to

assume such roles, identify potential funding and administrative requirements, and evaluate options and alternatives.

Projects to address the array of transitioning services needs of students with developmental disabilities exiting, or planning to exit, public school programs are being supported in Pago Pago, Samoa, and Seattle, Washington.

Two California projects will develop special curriculum to aid in training persons with developmental disabilities for transition from schools and from other community-based programs.

A trade association project will use the horticulture industry as a transitional employment experience development base, targeting industry-related, marketable skills.

Private industry will provide the transitioning training site for two additional projects.

Another project will provide direct involvement of parents, private employers, and state/local government representatives, and will include intensive training at the job site.

Services Occupations Targeted

Training for trainers and job placement staff is featured in a fast-food restaurant based project.

Repackaging of damaged goods is being developed as a labor contract (enclave) project with nationwide implications through the Safeway Stores network.

Recycling was featured in another project serving the dual function of providing employment and addressing environmental protection and resource conservation problems. The project has extensive application and potential for widespread growth as the scarcity of solid waste disposal sites become more critical and resource conservation efforts expand.

Hospitals are used as training and employment sites under a sheltered workshop (Department of Labor) certificate in Maine locations under which persons are provided supervised training and work experience in a variety of service jobs. The potential for nationwide replication is being promoted currently. The American Association of Hospital Administrators has become a new major partner in the employment initiative, due in a large part to this hospital industries demonstration.

Training of computer services technicians is supported in a project in Hawaii, a job that becomes more feasible in the recent change in design of computers to module-type construction in which repair often involves module (component) replacement, rather than complicated unit repair.

Landscaping and greenhouse workers are being trained in a national project designed to place workers in a growth industry.

Bakery workers are being trained in Virginia through a project with long range hopes that persons with developmental disabilities will be able to own and manage bakeries.

Boats and other sailing craft are being cleaned and maintained in Florida as another expansion of employment areas.

Building maintenance and grounds maintenance employment, made available through federal and state contract set-aside provisions, is being expanded in the greater Washington area and many sections of the nation. Strategies for extension to an unlimited number of sites nationwide already is underway through National Industries for the Severely Handicapped and private, community-based facilities.

Special Categories of Persons with Disabilities

Persons with audio-visual disabilities (e.g., deaf-blind) are being given special attention as employment candidates through a project in Alabama designed to develop and/or identify adaptive devices, accommodation and training techniques, and other methods of enhancing employability.

Other persons with multiple disabilities are the target group for a project using current techniques in supported employment being applied to the general developmentally disabled population, with revisions to recognize the unique needs.

Special problems of Native Americans with developmental disabilities are being addressed through a training and employment project on a Navajo reservation.

Special Projects

A grant to National Association of Developmental Disabilities Councils has funded technical assistance to the councils to aid in responding to the employment initiative as planners, advocates and facilitators. In addition, it will aid in the decisions pertaining to reallocation of Basic State Grant funds for model and innovative projects and services.

A grant for another special project addressed the need to change state policies affecting employment of persons with disabilities. An award to the Council of State Policy and Planning Agencies (CSPPA) provides support for a series of training seminars in which state developmental disabilities council staff will work with other key state agency staff, including state rehabilitation representatives, to address strategies for achieving state policy change. States participating in the policy seminars are Arkansas, Colorado, Connecticut, Florida, Minnesota, New Jersey, and North Dakota.

Summary and Conclusions

The innovative nature of these projects and the diversity of techniques represent a comprehensive approach to assuring that the best available methods and technology are known to service providers, planning, agencies, advocates, and persons with developmental disabilities. In the current environment, in which nationwide effort is being made to contain costs and limit expenditures, several of the projects offer cost-efficient methods for reducing public assistance through employment development for current recipients.

These projects represent the Federal Government commitment to the Employment Initiative for Persons with Developmental Disabilities as well as to the Public Law 98-527 mandate for addressing employment-related activities as a major priority. Project findings and related materials developed by the grantees will be disseminated widely to interested parties, including state DD councils, protection and advocacy programs and university affiliated programs. In addition, the materials will be shared with agencies and organizations serving other special needs populations.

This group of special activities also provides further linkages with the employment-related programs of the Department of Education Office of Special Education and Rehabilitative Services, already working closely with OHDS in implementing a major Supported Employment Demonstration Project Initiative through an innovative interagency cooperative agreement.

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Placements: Rising Towards the Crest

A. Philip Nelan, Ph.D.

Notwithstanding its continuous annual growth to a \$178 billion gross business, the food service industry knows the crunch of need. How to maintain its growing array of over 8 million employees becomes a major concern as young people in their teens into their mid-twenties—a prime labor pool for this industry—will continue to decrease in the country's population during the next 10 years. Meanwhile, the industry is predicted to see an annual growth of 6 to 7 percent. The Bureau of Labor Statistics sees the industry as having an average of 165,000 openings annually in new jobs as well as needing nearly as many more in replacements for 50 percent of counter workers, waiter assistants, kitchen helpers, waiters/waitresses, cooks, and others.

Rehabilitation plays a role in the rescue. To help meet these needs the National Restaurant Association (NRA) has been conducting a liaison program between the industry and rehabilitation services, especially with facilities and agencies that train disabled persons in food service skills.

According to a recent limited NRA survey, nearly 12,000 persons with a wide range of disabilities entered competitive employment in food services during the 12 months ending July, 1985. The survey instrument was addressed nationally to each of the state vocational rehabilitation (VR) administrators and to our listing of about 1,200 facilities and agencies.

Eighteen state VR offices responded and accounted for 5,983 placements. In the other 32 states, 542

agencies and a scattering of VR divisional offices reported 5,500 others placed. A refining study of random replies from these state divisional offices indicates possibly a duplication of about 5 percent; for this general analysis the discrepancy is disregarded. Forty-five reporting agencies had no placements.

In a similar survey two years ago, 270 replies were received out of a smaller listing of 680; they accounted for slightly more than 5,100 placed in the industry during a like 12-month period. Then, 15 state VR offices reported 3,027 placed. Perhaps the increase in replies to the 1985 survey and a proportionate increase in placements indicate a greater emphasis upon the food industry as the focus for job-ready trainees among persons with disabilities.

The responses of the individual state agencies offer comparable reports. Nine agencies responded to both surveys and made a report in each. These are: Alabama, with 11 placements in 1983 and 269 in 1985; Arizona, with 84 in 1983 and 104 in 1985; North Dakota, with 28 and 58; Oklahoma, 242 and 269; South Carolina, 420 and 404; Tennessee, with 43 and 282; Texas, 700 and 1,346; Virginia, 534 and 378; and West Virginia, 77 and 137.

Nine state agencies reported only in 1985. These are: California, with 935 placements; Colorado, with 49; Georgia, 715; Hawaii, 85; Iowa, 135; Kansas, 101; Kentucky, 322; North Carolina, 998; and Nevada, 96.

Those responding in 1983 but not in 1985 are: Washington, D.C., 17;



Maryland, 125; Michigan, 317; Missouri, 172; Mississippi, 238; and Utah, 19.

Our findings are not really comparable from one year to another but do suggest an upward trend. The latest compilation of data by RSA on the occupations of rehabilitated persons is for fiscal year 1983. RSA's

ing training agencies in direct contact with state restaurant associations and their chapters, as well as with local operators to serve as potential advisors.

The results also appear to point to a growing number of owners/operators/managers among the more than 600,000 units in the country who rec-

those with various physical disabilities stood at 18 percent.

None of the categories indicates the degree or variations of the deficiencies. Many questions will come to mind about the incidences of supported work, transitional employment, negative attitudes, or apprehensions of the employers and fellow employees. These are areas of importance about which no information is available. The data affords only trends in the readiness of the industry to hire disabled persons.

Matching disabilities and jobs filled might make a useful analysis, but our resources do not permit our adding this appendix. Again, certainly information about work hours, benefits, date of hire, advancement on the ladder of positions, etc., would be significant. However, such details would create deterring complexity to our request for information and confront us with a mass of data beyond our capacity to deal with.

Types of Jobs Filled

Generally, people will say persons with disabilities start in entry level jobs in food service. Dishwashing usually first comes to mind, but the

The proportion of all rehabilitated persons placed into these occupations has risen steadily in recent years.

tabulation for that year shows 14,691 persons were employed in food and beverage occupations. The proportion of all rehabilitated persons placed into these occupations has risen steadily in recent years as follows: 1980, 5.8 percent; 1981, 6.0 percent; 1982, 6.6 percent; 1983, 7.0 percent; and 1984, 7.2 percent. For FY 1985, assuming a rise of 7.5 percent, the total number of placements into food service occupations should be 16,840, surpassing the previous high for the period 1980-85 recorded in 1980, when 15,913 placements were achieved.

Our NRA surveys in 1985 elicited over 100 percent more replies than in 1983 and accounted for an increase of more than 130 percent in additional placements. Perhaps it is permissible to observe, in a general way, that increasing numbers of training facilities are conducting curricula in food services and more are successfully placing persons in the industry. The increase of responses in 1985 may also indicate that National Restaurant Association/Projects With Industry programs that provide training materials and a broad range of publications (70,000 pieces annually) are having an impact. Also having a notable effect is our practice of plac-

ognize this hidden source of good employees. Perhaps one or more persons with impairments are employed today in at least 100,000 restaurant units in the country. If so, rehabilitation services may confidently look to a vast sea of jobs still to be filled among the other 400 to 500 thousand units.

As interesting as the figures are, more important to know are the types of disabilities employed, the jobs or positions filled, and examples of employers. The survey form asked for an identification of the impairment for each individual in one of three categories: retardation and learning

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disabilities, mental illness, and physical impairment.

Our data affords an indication of the ratios of disabilities entering the labor force of food services in the reported 12 months. As might be expected, the retarded and learning disabled led the groups, having approximately 50 percent of the total placed. The mentally restored placed about 32 percent of the total, and

survey does not support that view. Three categories of jobs commonly are thought of as entry level: kitchen helpers, dishwashers and maintenance. The survey replies show 59 percent found jobs in these three categories.

Kitchen helpers are non-cooking personnel acting in support of the kitchen organization for its production of meals. The job involves assistance



by washing and peeling vegetables, transferring supplies and equipment from storage to the work area, and maintenance within the kitchen area. Of the three occupations, the kitchen helper stood at 29.5 percent against 17.1 percent who were listed as dishwashers, and 12.4 percent holding other maintenance jobs. Again, the replies did not rigorously discriminate. They simply suggest trends.

The remaining 41 percent are more directly involved in food preparation and services. About 14 percent hold positions in fast foods, in cafeteria chains, in full-service restaurants as fry-cooks, short-order cooks, cook or baker helpers, or just cooks or bakers of a speciality, such as pies, pastry or pizza.

The remaining 27 percent in various other occupations dominantly serve food at counters or as waiters

and waitresses; others fill positions as managers, supervisors, hosts, hostesses, cashiers, bartenders, butchers or meat cutters, and in dietary occupations.

Employers of Disabled Persons

The reported employers of persons with handicapping conditions in food services represent a wide range of national, regional and local owners/managers/operators. The distribution of large chain organizations, whether in fast foods, cafeterias, or full-service, appear to about equal each other in their employment practices. That total group dominates the employers cited in the returns. But local food services form another employing group. They probably represent a combination of fast foods, cafeterias, and full service operations. Together these smaller local

independent employers match in the responses the large fast foods, cafeterias, or full service restaurants.

Random sampling reveals the expected chains: the Pillsbury Group—Burger King, Bennigans, the Haagen Dazs Shoppe Co, and Steak and Ale; the General Mills Group—Red Lobster of America, York Steak House, Darryl's, and the Good Earth; and the Marriott Corporation Group—Roy Rogers, Hot Shoppes, Bob's Big Boy, Big Boy Jr., and In-Flite Food-service Management.

The hundred or more fast food chains and cafeterias with a variety of services repeatedly appeared in the listings: McDonald's, Kentucky Fried Chicken, Wendy's, Naugles, Luby's Cafeterias, Round Table, Hardees, Taco Bell, Domino's Pizza, Long John Silver's, Morrison's, Wyatt, Carl's Jr., Shoney's Furr's Cafeterias, Hardees, Ponderosa, Pizza Hut, Denny's, Friendly's, Sizzler's, Western Sizzler, Bonanza, Mr. Steak, Chi Chi's, Perkins, Pizza Inn, Ground Round, Bob Evans Farm, Lettuce Leaf, and Steak and Ale.

The contract management companies form another category of employers. They operate food services in institutions, businesses, colleges, hotels, airports, and such. These are SAGA, ARA, Canteen, Host International, Dobbs Houses, Service Systems, Servomation, Macke (now Service American Corporation), Seiler, and DAKA.

Local clubs, colleges or universities, hospitals, and nursing homes have looked to qualified impaired persons to fill food service jobs. The military, too, in various areas of the country—notably Sheppards Air Force Base at Wichita Falls, Texas—are employing persons with impairments.

Hotels grow more attentive to the

(Continued on page 32.) 17

TOPIC OF STATE

Bonanno Receives NCEARC Award

Ben Bonanno, executive director of the Association for Retarded Citizens in Cuyahoga County, Ohio, is the 1985 recipient of the Outstanding Professional Achievement in Advocacy Services Award, presented annually by the National Conference of Executives of Associations for Retarded Citizens. The award recognizes a person who "best represents a good advocate and community leader on behalf of persons who are mentally retarded."

Mr. Bonanno was selected by a panel of his peers at the national level, who reviewed a portfolio of information prepared by those who have worked with him.

In recognition for his outstanding contributions to the field of mental retardation and rehabilitation at the local, state, national, and international levels, he was also honored by a special resolution passed by the Ohio Senate as well as one passed by the Cuyahoga County Commissioners.

Mr. Bonanno is also a commissioner on the Ohio Rehabilitation Services Commission.

MRS Places 7,008

Michigan Rehabilitation Services (MRS) assisted 7,008 handicapped men and women into jobs during FY 1985.

Of these, 6,323 entered the open job market and will earn an estimated \$52.9 million in wages in their first year on the job; 685 were placed in noncompetitive jobs such as sheltered employment and homemaking.

Ohio Rehabs Up

Year-end figures for the Ohio vocational rehabilitation program indicate that the Ohio Rehabilitation Services Commission (RSC) has not only surpassed all agency goals for the program year of 1985, but has also improved on its 1984 performance.

Total number of rehabilitations is up 5.6 percent; competitive rehabilitations represent 73 percent of the total rehabilitations, which is up 0.6 percent; severely disabled rehabilitations are 57.9 percent of the total, up 2.5 percent; and severely disabled rehabilitations placed competitively total 35.1 percent, up 3.9 percent.

RSC reports that 10,163 individuals were successfully rehabilitated.

Calif. Governor Awards 'Client' and 'Employer'

David Theodore Lichtenstein was presented the "Client of the Year Award" and Edward Henney, executive vice president, Safeway Stores, Inc., was given the "Employer of the Year Award" by California Governor George Deukmejian.

Mr. Lichtenstein was commended for his accomplishments in spite of the presence of a severe disability which confines him to a wheelchair, with very limited use of hands and arms, and the additional complication of being legally blind.

With the help of the state agency, he managed to persevere through the rigors of university life, graduated with a Bachelor of Science degree, and obtained a consulting job at Northridge Hospital.

Governor Deukmejian commended Safeway Stores, Inc., for its commitment to hiring people with disabilities, removal of architectural barriers, and its fund raising activities.

OU Awarded Training Grant

Ohio University, in Athens, Ohio, was awarded a training grant from the Rehabilitation Services Administration for training rural rehabilitation counselors. This grant provides financial assistance for 16 students to receive master's level education. The program is designed to teach counselors to work in Appalachian areas.

The Rehabilitation Counselor Education training program at the university was initiated in 1981. Graduates of the program, located within the College of Education, receive an M.Ed. with a specialization in guidance and counseling and an emphasis in rehabilitation counseling.

Full Accommodation Ensured by Little Known Law

Proprietors of establishments offering accommodations to persons with disabilities in Ohio are affected by a little known statute called the Public Accommodation Civil Rights Law (Chapter 4112 of the Ohio Revised Code).

This law, enforced by the Ohio Civil Rights Commission, prohibits the "proprietor or any employee, keeper or manager of a place of public accommodation" from denying "the full enjoyment of the accommodations, facilities or privileges thereof."

Whether a place of public accommodation has made its facility accessible for use by persons with disabilities is determined on a case-by-case basis. The following factors are taken into consideration: whether reserved parking spaces for disabled persons are being provided close to the building entrance; if walkways

from those spaces are accessible; if steps at entrances have been ramped; whether public entrance doorways are wide enough to permit passage by wheelchairs; and if building features such as restrooms, elevators and drinking fountains are accessible.

The burden of proof is on the owner or manager to demonstrate that denial of any accommodation is based on a restriction application to all persons, regardless of disability or because of an inability to reasonably accommodate due to an undue hardship to the owner.

Virginia PERT Expands to 18

Twelve Virginia localities have been approved to join in a pilot demonstration model project to help learning disabled and mildly mentally retarded students prepare for employment or postsecondary educational programs, it was announced recently by Virginia's Department of Education and Department of Rehabilitative Services. This expands participation in the state's Post-secondary Education Rehabilitation Transitioning Project (PERT) from six original sites to eighteen.

PERT is a federally-financed two-year effort, with funds of approximately \$200,000 to specifically identify the needs of 10th grade students who are learning disabled or mildly mentally retarded. The project is also geared to pinpointing available programs to meet the students' needs and to bridging the gap where service delivery voids exist.

A total of 49 students from the six original districts participated in the program during the first year of operation, and another 150 are projected to take part in the second 12-month period, representing all 18 sites.

Homeless Project Expands in Ohio

A project which originated to help with the health problems of 5,000 homeless persons in the City of Cleveland has expanded to include identification of those who might be eligible for Social Security Disability benefits.

The Social Security area office in Cleveland contacted persons involved with health care for the homeless when they recognized the additional opportunity for Social Security to reach out to the homeless population.

The Ohio Rehabilitation Services Commission's Bureau of Disability Determination (BDD) was called in, and in July 1985 BDD claims specialist Sandie Hotchkiss worked out a training schedule with Project Director Rudy Kemp. The training was to enable staff of the project to relate to the Social Security medical disability program to make more appropriate referrals.

Columbus Area Manager Bruce Hickin initially trained five physicians on the project staff, providing an overview of the disability evaluation process, along with discussion of issues and problems encountered in claims for the homeless. The BDD staff, along with these physicians, provided an additional day and a half training for the nurses, case managers and mental health staff and some Cleveland Social Security staff.

Twelve shelters in the Cleveland area refer those who are in need physically, medically or financially. Two teams of doctors, nurses and caseworkers have been established for the purpose of interviewing, examining and treating individuals and assisting when needed. Appropriate individuals are referred to the local Social Security office or appointments are arranged at shelters for ap-

plications to be taken by designated Social Security claims representatives.

BDD is also participating in a similar project for the homeless in Toledo.

Michigan Agency Assists Students

Michigan Rehabilitation Services (MRS) contributed \$720,159 towards the tuition, books and school supplies of 1,809 handicapped students who were enrolled in two-and four-year colleges during the 1984-85 school year.

The agency also contributed \$596,942 toward the room and board and transportation costs of the students.

An additional 770 handicapped residents were sponsored by MRS last year for basic adult education and on-the-job training at a cost of \$341,203. MRS works closely with high schools throughout the state to help handicapped students plan to continue their education.

Hastings Named Top Facility in Nebraska

Hastings Vocational Rehabilitation Evaluation Facility in Lincoln was honored recently as Nebraska's "Facility of the Year" for 1985, for sustained superior performance by its staff.

The state's evaluation facilities are measured against standards considered to be signs of success in the vocational evaluation business. The seven-member Hastings staff far exceeded those standards in number of evaluations completed, number of evaluations resulting in successful rehabilitations, and the success rate in selecting job goals.

Staffing Supported and Transitional Employment Programs: Issues and Recommendations

Deborah E. Cohen, Ph.D., Sarah L. Patton, Ed.M., and Richard P. Melia, Ph.D.

A recent article in **American Rehabilitation** described the emergence of job coaches as key staff in the provision of direct employment services to severely disabled persons.¹ After explaining the duties and linkages performed by job coaches, the article noted that many major issues must be resolved if sufficient numbers of trained, competent direct staff workers are to be prepared to staff rapidly expanding supported and transitional employment programs.

The article, by Paul Wehman and Richard Melia, reported that a national study was underway by Harold Russell Associates to define critical organizational and competency issues related to the training and employment of job coaches and similar direct service providers. The study was completed in October, 1985. This paper presents an overview of the study's methods and findings, including a summary of proceedings and recommendations of a two-day consensus seminar attended by many leaders in supported and transitional employment.

Although the recommendations are primarily directed to federal officials, the ideas and content on managing, training, and structuring staff roles for supported and transitional employment are relevant for all levels of government and all types of supported and transitional employment settings. The study conclusions are

presented here as an indicator of the needs and complexity encountered in staffing these important areas. No doubt much more detailed statements of competencies, training requirements and position descriptions are both wanted, and to an extent available, in the nation's rapidly expanding range of new employment settings for severely disabled people.

Project Overview

The U.S. Department of Education, Office of Special Education and Rehabilitative Services (OSERS), National Institute of Handicapped Research (NIHR), contracted in February 1985 with Harold Russell Associates (HRA) Contract No. 300-85-0094 to define the functions and competencies of staff of Transitional Employment (TEP) and Supported Employment Programs (SEP) for severely disabled persons. The delineation of staff functions and competencies for these programs was accomplished through a Delphi Process. This technique is a mechanism for collecting data and structuring communication among a group of diverse individuals. The goal of the Delphi technique is to reach consensus regarding a complex problem through a reiterative process.

An advisory committee, composed of experts in the field of TEP/SEP training, mental retardation developmental disabilities (MR/DD), and

vocational rehabilitation (VR) state services, was responsible for overseeing the activities of this project. These activities included selection of the members for the Delphi panel; the development, administration and analysis of the three rounds of the Delphi questionnaires; and the planning of a consensus seminar.

The success of the Delphi process depended upon the heterogeneity of participants. To respond to this need, the Delphi panel was composed of nine members representing a wide-range of settings relevant to TEP/SEP: special education; supported employment models; supported employment services; rehabilitation facilities; transitional employment services; VR agency; MR/DD agency; Projects With Industry programs; and parent advocacy.

Each panelist completed three questionnaires, the second and third of which were derived from the findings of the earlier questionnaire. These findings formed the basis for the consensus seminar. The purpose of the consensus seminar was to have the results of the Delphi process reviewed and discussed by a broader group of experts in TEP/SEP approaches, permitting exchange of views of the Delphi panelists and persons administering or planning new staffing arrangements for TEP/SEP settings.

Project Methodology

The advantages of the Delphi process for this study were: consensus about major issues was quickly reached; areas of lack of agreement were analyzed and some interpretation was provided; given the limited time frame of the study, the Delphi technique was expedient and provided the structure to maintain consistency.

The advisory committee helped develop the first questionnaire as an open-ended document. The responses provided the content for the second questionnaire. All information was prioritized. Information which received a low rating was not included in the third questionnaire.

General consensus was reached through the Delphi on basic skills needed by management and direct service staff. There was less agreement on specialized positions, such as job developer. Also, there was less agreement on the level and type of training needed.

Consensus Meeting

Perhaps the greatest contribution of the consensus meeting held in the final month of the study was the opportunity for leading experts—for the first time ever—to explore and define the ingredients which must exist for successfully staffing supported and transitional employment. There was broad agreement that the unambiguous definition of direct staffing roles and competencies required commitment to basic TEP/SEP goals of philosophy. The five essential outcomes of TEP/SEP are listed in recommendation 4.

Most people felt that the smaller units of TEPs/SEPs have a greater chance of success in achieving these outcomes of paid employment, effectiveness, integration, advocacy, and

stability, whether they are or are not located in large organizations.

Controversy remains on staffing patterns and salary issues. The job development/placement function as well as the marketing function also continues to be an area of debate. These functions change in importance, depending on the type of program. Also some people felt that marketing should be a management function instead of a direct service staff function. The salary of the direct service staff position should reflect a professional position. Most people agreed that agencies should have flexibility to arrange staffing patterns. Both management and direct service staff should share the same TEP/SEP ideology.

The skills needed by the management staff of TEPs/SEPs are the same skills necessary to manage any type of organization. Administrative duties need to be separated from program management functions. In addition, the management role is dependent on organizational size. In larger TEP/SEP agencies the management functions need to be coordinated with the direct service staff roles. No matter what the size of the agency, it was strongly felt that management staff of TEPs/SEPs must have direct service experience. The process of converting present managers of rehabilitation facilities to the TEP/SEP philosophy may be difficult, but it is possible. Performance-based funding and values clarification will help this process.

Training Issues and Recommendations

Many issues concern the training of TEP/SEP personnel. A few of these are: What are the best training sites for practicums? How will training programs be funded? Who will provide the training? Should the training be a conversion, add-on or replace-

ment to existing training programs? In addition, training content is critical. The training will need to be prescriptive about severely disabled trainees and what are the skills and competencies to be acquired by employment training specialists. Both long-term and short-term training is necessary to meet existing and anticipated needs for staff. There is need for new courses or curricula as well as additions to existing training.

To sustain the TEP/SEP movement, parent advocacy training is critically important. Advocates should be able to ask about information and program outcomes and demand that competent staff be available who adhere to the recommendations listed in this report.

The following recommendations were developed with the cooperation of the participants and were reached through consensus.

Recommendation 1

The direct service staff role is critical for the operation of TEPs/SEPs and should be considered a professional position. It is recommended that the title of the position should be *employment training specialist*.

Recommendation 2

TEP/SEP programs are distinguished by their reliance upon professional direct service staff; employment training specialists should provide the program's crucial training and behavior change interventions. This direct service role is a substitution for many of the traditional support services offered in employment programs. While this job role is central to the TEP/SEP model, it is broadly defined and may be supplemented by other job functions, depending upon different organizational models and structures.

Employment Training Specialist: Functions

1. To provide on-the-job training to severely disabled persons.
2. To analyze the job tasks to develop the training program.
3. To provide supervision to the disabled trainee.
4. To utilize behavior management techniques to ensure that the disabled employee learns appropriate work behavior.
5. To advocate for integrated relations with the employer and co-worker relations.
6. To utilize fading techniques to withdraw staff or support services, when appropriate.
7. To negotiate work-related issues with employers, such as schedule, site modification, etc.

Recommendation 3

A clear role should be broadly defined for the employment training specialist which will account for different work settings and geographic region.

Recommendation 4

The employment training specialist role should be derived from five key TEP/SEP outcomes:

- Access to paid employment for all individuals;
- Effective training of all individuals for employment;
- Integration of employment with nondisabled workers;
- Service coordination and advocacy; and
- Organizational stability to deliver support service.

Recommendation 5

Specific employment training specialist functions and competencies should be concretely defined in relation to the five objectives of TEP/SEP. The functions and competencies presented here, as delineated by Delphi Process, represent only a minimal list of which the employment

training specialist role is comprised. Depending on the agency, a more comprehensive list of functions and competencies may be developed but must always be delineated in relation to the five outcomes of TEPs/SEPs (see box #1).

Organizations should have the flexibility to decide their own staffing pattern. However, it is recommended that the management staff have direct experience with the direct service functions listed in box #1. Additional functions which are primarily management functions and depend on an agency's staffing pattern could also be added to the direct service role (see box #2). Agencies should have the flexibility to decide who should have the responsibility for the job placement and marketing functions.

It is essential that both management and direct service staff in TEP/SEP settings possess basic competencies in directly assisting severely disabled persons into employment (see box #3). Additional competencies needed by management or direct service staff should be related to the organization's staffing pattern (see box #4).

Recommendation 6

The salary levels of the TEP/SEP employment training specialist should be comparable to traditional professional positions in rehabilitation and education.

Recommendation 7

The size of the actual TEP/SEP work unit should be small, regardless of the overall size of the agency.

Recommendation 8

Parent advocacy training programs should include TEP/SEP parent training.

Recommendation 9

Funds should be administratively or legislatively designated for the professional preparation of employment training specialists of TEPs/SEPs.

Recommendation 10

Three types of training and personnel preparation programs should be supported:

- Leadership training programs should be available to "train the trainers" and state personnel.
- Short-term training should be available to existing practitioners; and it is needed immediately. Therefore, existing mechanisms, such as VR and SPED regional meetings/conferences, should be used.
- Long-term preservice personnel preparation should be provided and should take the form of specialized TEP/SEP training sequences added to existing programs for "certification," and/or long-term training with specialized state-of-the art curricula.

Each type of training and personnel preparation programs should be competitively selected using the standards described in Recommendation 11.

Employment Training Specialist: Additional Functions

1. To oversee the operations of the program.
2. To recruit staff, provide supervision, and evaluate staff performance.
3. To implement systems to monitor the program's finances and operating budget.
4. To implement on-going program monitoring and evaluating system.
5. To establish the necessary policies for the administration of the agency.
6. To develop and implement the annual plan.
7. To develop operating agreements with industry.
8. To develop relationships in the business community for program marketing.
9. To establish systems to monitor production and inventory.
10. To develop work sites for disabled persons.
11. To design appropriate types of work models for industry (e.g., enclaves, mobile crews).
12. To participate in business community activities.
13. To market program in business community.
14. To perform job market analysis to identify potential industries in which to establish programs.

Recommendation 11

A wide variety of service deliverers could appropriately train TEP/SEP personnel. Therefore, the selection of personnel preparation programs should be through an open-bid competitive process. The competitive process should include standards and criteria for the selection of the personnel preparation and training organization. These criteria are:

- The training unit must be delivered in the context of exemplary services. The personnel preparation program may either be the sponsor of the exemplary services or have access to exemplary services through affiliation and contract.

- The proposed personnel preparation program must present a set of

competencies which comprehensively address the five objectives of TEPs/SEPs.

- The personnel preparation pro-

gram must include a practicum experience and be competency-based.

- The trainers must document prior experience as a TEP/SEP exemplary service provider which has adhered to the five objectives or must be associated with such an exemplary service provider.

These criteria apply to both the selection of programs to "train the trainers" and preservice personnel preparation programs.

Conclusion

The findings and recommendations of the Harold Russell Associates study have already had an impact on the development of TEP/SEP programs. The University of Oregon's *Employment Network* project has distributed the findings as part of their technical assistance to the 10 states which are administering supported employment demonstrations with funding from the Rehabilitation Services Administration (RSA). Personnel preparation programs in both RSA and Special Education Programs have studied the recommendations as a basis for new training initiatives. Presentations have been made by former project participants to a

Employment Training Specialist: Competencies

- Knowledge of disabled employees' job requirements.
- Understanding of employers' job requirements.
- Ability to train effectively.
- Interpersonal skills, such as good communication skills.
- Knowledge of task analysis.
- Knowledge of behavior management techniques.
- Understanding of industry procedures.
- Knowledge of work/personnel adjustment skills.
- Understanding of relationship between programmatic needs and severity of handicap.

Employment Training Specialist: Additional Competencies

- Ability to establish program performance goals.
- Business management skills.
- Understanding of private sector procedures.
- Knowledge of funding mechanisms.
- Staff training skills.
- Public relations and marketing skills.

variety of groups to assist in spreading the word of the need to address these important staffing issues.

This topic will continue to be a significant one during the implemen-

tation of expanded TEP/SEP efforts. Individuals and groups at all levels and employment settings should contribute to this important continuing personnel development debate. We

owe a special thanks to the many individuals who contributed to the definition process in the Harold Russell Associates study.

Dr. Cohen and Ms. Patton were co-project investigators for the Harold Russell Associates study. Dr. Melia is a rehabilitation research specialist, National Institute of Handicapped Research.

References

- 1) Wehman, P. and Melia, R. "The Job Coach: Function in Transition and Supported Employment." *American Rehabilitation* Apr-May-Jun 1985.

J.M. Foundation Awards Announced

To recognize and reward America's best vocational rehabilitation programs, The J.M. Foundation has announced the 1986 National Awards for Excellence. Grants of \$20,000 each will be awarded to programs chosen for outstanding achievements in this field.

The four competitive categories in the nationwide search are: facility-based work adjustment; long-term sheltered employment; community based supported work; and occupational skill training. Selection of up to four programs for awards will be made this summer by a blue ribbon panel headed by Jeremiah Milbank, Jr., president of The J.M. Foundation, one of the oldest in the nation.

In introducing the new national awards, Mr. Milbank said that "despite the fact that more than 5,000 vocational facilities serve several hundred thousand disabled people each

year, very little is done to identify and reward the outstanding programs in these centers. The nation's vocational services will be vastly improved if creativity, innovation and leadership are objectively recognized, amply rewarded and effectively replicated."

Representatives of the following organizations serve on the 1986 National Awards for Excellence advisory panel: Commission on Accreditation of Rehabilitation Facilities, Goodwill Industries of America, ICD-International Center for the Disabled, Iowa Association of Rehabilitation and Residential Facilities, The J.M. Foundation, the National Association of Jewish Vocational Services, National Association of Rehabilitation Facilities, The National Easter Seal Society, Ohio Rehabilitation Services Commission, and the United Cerebral Palsy Association.

Any private, not-for-profit organi-

zation providing vocational, developmental or rehabilitative services is eligible to enter. For information on applying to the 1986 National Awards for Excellence, call Walker & Associates, Inc. (612) 870-4420. Applications must be postmarked by May 1, 1986.

The J.M. Foundation is active in several related fields, including rehabilitation of the physically handicapped; prevention and wellness, with an emphasis on individual responsibility for health; alcohol abuse and alcoholism; selected projects in biomedical research and medical education; and health-related public policy research. The Foundation also has a strong interest in educational activities, individualism, entrepreneurship, voluntarism, and private enterprise.

REPORT RESOURCES

SETTING PACE RATES: THE TIME STUDY GUIDE FOR REHABILITATION FACILITIES. RPN, Inc., Department N, 223 1/2 N. Jefferson, Wadena, Minnesota 56482. Telephone: (218) 631-4707. 200 pages. \$54.95 (plus \$3.55 shipping and handling).

This new multimedia, self-instructional training program provides approximately 10 hours of self-paced instruction designed to help sheltered workshop personnel improve compliance with U.S. Department of Labor wage and hour regulations as well as prepare more accurate piece rates and contract bids. Detailed sections include: Methods Analysis Procedures, Operator Training and Cycle Size Determination, How to Determine the Production Standard, Performance Rating, How to Establish the Prevailing Wage, Setting the Final Piece-Rate Wage, and more.

Three hours of audio cassette training are also provided.

COMPUTERS. Recorded Periodicals, Associated Services for the Blind, 919 Walnut Street, Philadelphia, Pennsylvania 19107. Articles from selected computer magazines including **Personal Computing**, **Creative Computing**, **Byte**, and others. Cassette. \$38.00, purchase. \$20.00 if cassettes are returned.

MCS MODEM. Maryland Computer Service, 2010 Rock Spring Road, Forest Hill, Maryland 21050. Bimonthly newsletter discussing products distributed through Maryland Computer Service. Print. Cassette. Free.

AIDS AND APPLIANCES REVIEW. Carroll Center for the Blind, 770 Centre Street, Newton, Massachusetts 02158. Issues 9, 10: Voice Output for Computer Access. Issue 11: Braille and Computers. Cassette. Print. Issues 9, 10 and 11 only available at \$1.25 each.

BAUD (BLIND APPLE USER'S DISCUSSION). Audio-Tech Laboratories, 1158 Stewart Avenue, Bethpage, New York 11714. Bimonthly newsletter for Apple users. Cassette. \$24.00.

POSITION PAPER ON A PROSPECTIVE PAYMENT SYSTEM FOR INPATIENT MEDICAL REHABILITATION SERVICES AND A STUDY REGARDING A PROSPECTIVE PAYMENT SYSTEM FOR INPATIENT MEDICAL REHABILITATION: FINAL REPORT. National Association of Rehabilitation Facilities, P.O. Box 17675, Washington, D.C. 20041. Non-NARF members, \$100; NARF members, \$30; non-member hospitals or units, universities, state or local government entities, \$60.

THE GUIDE TO RECREATION, LEISURE AND TRAVEL FOR THE HANDICAPPED. Two-volume set. Volume I: RECREATION AND SPORTS. Volume II: TRAVEL AND TRANSPORTATION. Resource Directories, 3103 Executive Parkway, Suite 212, Toledo, Ohio 43606. Volume I, 274 pages, \$59.95; Volume II, 258 pages, \$59.95. Both volumes, \$109.

DESIGNING JOBS FOR HANDICAPPED WORKERS. Rehabilitation Research and Training Center, University of Arkansas, P.O. Box 1358, Hot Springs, Arkansas 71902. \$3.00.

Based on a conference conducted by the President's Committee on Employment of the Handicapped at the December 1985 convention of the Institute of Industrial Engineers, this publication describes the application of an analytical, systems approach to accommodations at the job site for workers with disabilities. It deals with the interaction of job analysis, functional analysis and job modifications, including the transfer of new technology, in the job redesign process.

APPLE TALK. Jeff Weiss, 3015 South Tyler Street, Little Rock, Arkansas 72204. Quarterly magazine for Apple users who have speech synthesizers. Apple disc (disc must be returned before next issue can be sent). \$10.00.

COMPUTER SCIENCE UPDATE. NFB in Computer Science, 35330 North DuPont, Minneapolis, Minnesota 55412. Semi-annual newsletter listing sources of computer aids and services. Print. \$2.00.

PUBLICATIONS CATALOG. University of Arkansas, Arkansas Rehabilitation Research and Training Center, Hot Springs Rehabilitation Center, P. O. Box 1358, Hot Springs, Arkansas 71901. No Charge.

This packet contains catalog sheets with descriptions of more than 64 research reports, reference materials, and training programs published by the Arkansas Research and Training Center.

COMPUTERWORLD. Recorded Periodicals, Associated Services for the Blind, 919 Walnut Street, Philadelphia, Pennsylvania 19107. Monthly technical oriented computer magazine. \$38.00, purchase. \$20.00 if cassettes are returned.

RAISED DOT COMPUTING NEWS. Raised Dot Computing, 408 South Baldwin Street, Madison, Wisconsin 53703. Monthly newsletter discussing issues related to Brailleedit and Apple Computers. Print, \$18.00. Cassette, \$20.00.

DIALOGUE. Dialogue Publications, 3100 Oak Park Avenue, Berwyn, Illinois 60402. Quarterly general interest publication for visually impaired which frequently includes articles on microcomputers and related technology. Large print. Flexible disc. Braille. \$15.00.

LINK AND GO. CPH-2, Committee on Personal Computers and the Handicapped, 2030 West Irving Park Road, Chicago, Illinois 60618. Quarterly magazine. Print. Cassette. \$8.00.

SENSUS. Sensory Aids Foundations, 399 Sherman Avenue, Suite 12, Palo Alto, California 94306. Quarterly consumer guide to technology. Print. Cassette. Included with subscription to Technology Update.

SMITH KETTLEWELL TECHNICAL FILE. Smith Kettlewell Institute, 2232 Webster Street, San Francisco, California 94115. Quarterly magazine discussing issues related to electronics and instructions for making devices. Braille. Cassette. Large print. \$15.00.

PERSONAL COMPUTING. Direct circulation from cooperating libraries. Monthly general interest computer magazine. Braille. Free to eligible readers.

TACTIC. Clovernook Printing House, 7000 Hamilton Avenue, Cincinnati, Ohio 45231. Quarterly magazine on the use of microcomputers by visually impaired individuals. Braille. \$4.00.

ICRRT II PROCEEDINGS. Professional papers presented at the International Conference on Rural Rehabilitation Technologies held October 22-24, 1985, at the University of North Dakota in Grand Forks. Available from ICRRT Headquarters, Publications Secretary, Engineering Experiment Station, Box 8103 University Station, Grand Forks, North Dakota 582021, or call (701) 777-3120. 190 pages. \$30.

This publication includes background materials, concept papers and conference highlights about rural service delivery models and technology available for the rural disabled.

ACCESSIBLE FISHING: A PLANNING HANDBOOK. Available from Resource Management and Development Division, New Mexico Natural Resources Department, Suite 129, Villagra Building, 408 Galisteo, Santa Fe, New Mexico 87504.

This publication offers ideas for all types of recreation facilities and equipment.

TECHNOLOGY UPDATE. Sensory Aids Foundation, 399 Sherman Avenue, Suite 12, Palo Alto, California 94306. Monthly review of current technology. Print. Cassette. \$30.00.

TOUCHING LIVES: RESPONDING TO PEOPLE'S NEEDS. 1984-85 Annual Report. American Foundation for the Blind, Public Relations Department AR, 15 West 16th Street, New York, New York 10011. Talking Book tape cassette. Free.

The report contains eight personal stories about blind and visually impaired people who have benefitted, either directly or indirectly, from AFB's services.

DATAMATION PLUS. Recorded Periodicals, Associated Services for the Blind, 919 Walnut Street, Philadelphia, Pennsylvania 19107. Selections from **Datamation**, **Computer Decisions**, and **Focus** magazines. Cassette. \$38.00 purchase. \$20.00 if cassettes are returned.

DEVELOPING A CONSULTING PRACTICE IN REHABILITATION. Thomas E. Backer, Ph.D. (founding editor of *Consultation* and past president of the American Psychological Association's Division of Consulting Psychology). Rehab Software, 20121 Ventura Boulevard, Woodland Hills, California 91364. 110-minute audiocassette and accompanying workbook.

The audiocassette features Dr. Backer discussing principles and techniques of consulting based on his experience in the field of organizational consultation and with rehabilitation organizations. A special feature of the learning package are three exercises that can be replayed when first approaching a prospective client, when beginning a consulting assignment, or when reviewing a completed consultation. The exercises are presented in both audio and print format.

THE SPECIALWARE DIRECTORY: A GUIDE TO SOFTWARE FOR SPECIAL EDUCATION. Compiled by LINC Associates, Inc. The Oryx Press, Suite 103, 2214 North Central at Encanto, Phoenix, Arizona 85004-1583. 160 pages. Paperbound. \$19.50. No charge for postage and handling on prepaid orders. Order toll free by calling 1-800-457-ORYX, or in Arizona, Alaska and Hawaii, dial (602) 2540-6156.

The directory is designed to assist all those who are involved in efforts to use the new technology for the benefit of disabled learners.

This edition includes more than 100 new product references, offering over 300 software programs available from 116 publishers. Arranged alphabetically by product title, each entry contains complete cataloging data, including an abstract that describes the program and its instructional contents.

BRIDGES FROM SCHOOL TO WORKING LIFE FOR HANDICAPPED YOUTH: THE VIEW FROM AUSTRALIA. Monograph Thirty-Three. By Trevor Parmenter, McQuarie University. Anticipated

publication date: April 1986. Available from IEEIR, World Rehabilitation Fund, Inc., 400 East 34th Street, New York, New York 10016.

THE CAPABILITY COLLECTION. The Ways and Means Capability Center, 28001 Citrin Drive, Romulus, Michigan 48174. 168 pages.

This catalog lists products available from the Ways and Means Capability Center to assist handicapped persons in food preparation, health and fitness, reaching and carrying, housekeeping, and gardening.

Liberty

(Continued from page 7.)

been cited in the *U.S. Congressional Record*, the *New Jersey Legislative Record* and, most recently, the *New York Legislative Record*.

The Committee members are: Richard Bernard, senior rehabilitation counselor, New Jersey Division of Vocational Rehabilitation; H. William Bernstein, deaf educator; Joseph Kane, Esq., Atlantic County Counsel, New Jersey Atlantic County Law Department; Joseph Llewellyn, National Services Officer, New Jersey Disabled American Veterans; Terry Moakley, Eastern Paralyzed Veterans of America; Ms. Thelma Schmones, Special Assistant for Constituent Relations, Office of Special Education and Rehabilitative Services; William Scott, advocate, Arizona Center for Law in the Public Interest; Paul Smith, Deputy Advocate, New York Office of Advocate for Disabled Persons; and Conrad Vuocolo, Special Assistant, Congressman Frank Guarini.

The National Park Service Liaisons

are: Ray Bloomer, disability specialist, North Atlantic Regional Office; David Moffitt, Superintendent, Statue of Liberty National Monument; Ms. Debbie Burge Neal, disability coordinator, Statue of Liberty—Ellis Island Foundation; and David C. Park, Chief, Special Programs and Population Branch.

The Statue of Liberty Liaison is Donald P. Kent, Director, National Organizations Campaign.

Our accessibility to each other, our continued presence at meetings from New York to Washington, to Atlantic City, to Albany, as well as to the Islands, attests to an effort that has called forth our highest hopes and dreams for the future.

As Emma Lazarus' famous sonnet "New Colossus" states:

*"Not like the brazen giant of Greek fame,
With conquering limbs astride from land to land;
Here at our sea-washed, sunset gates shall stand*

*A mighty woman with a torch, whose flame
Is the imprisoned lightning, and her name
Mother of Exiles, From her beacon hand
Glow world-wide welcome; her mild eyes command
The air-bridged harbor that twin cities frame.
"Keep, ancient lands, your storied pomp!" cries she
With silent lips, "Give me your tired, your poor,
Your huddled masses yearning to breathe free,
The wretched refuse of your teeming shore,
Send these, the homeless, tempest-tost to me,
I lift my lamp beside the golden door!"*

Thelma Schmones is Special Assistant for Constituent Relations, Rehabilitation Services Administration, Region II.

PUBLICATIONS & FILMS

Campus Access for Learning Disabled Students. Barbara Scheiber and Jeanne Talpers. Closer Look/Parents Campaign for Handicapped Children and Youth, 12201 16th Street, N. W., Washington, D.C. 20036. 195 pages. \$17.95.

This publication serves as a comprehensive guide to successful post-secondary education for youth with learning disabilities. The book offers solutions to many difficult and complex problems, including preparing for and choosing an appropriate post-secondary program and arranging for diagnosis, special instruction, classroom accommodations, counseling, and other services.

Aging and Vision: Making the Most of Impaired Vision. Published jointly by the American Foundation for the Blind and the American Association of Retired Persons. Publications and Information Services, Department AVF, the American Foundation for the Blind, 15 West 16th Street, New York, New York 10011. Single copies are free, but there is a charge for bulk orders.

This large-print booklet gives handy and inexpensive tips on travel and food preparation, as well as the use of color contrast and effective lighting to reduce eye strain. Also included is a special section on vision aids such as high-intensity magnifying lamps, signature guides for signing documents and large-print telephone dial/push button attachments. Other aids include pocket talking calculators, self-threading sewing needles, and a large digit long-ring kitchen timer.

Computer Equipment & Aid for the Blind and Visually Impaired. A Resource Guide 1985. Project director, Karen Luxton. Researched and compiled by Judith Gerber. Edited by Judith Gerber and Lois Henry. Computer Center for the Visually Impaired, Baruch College, 17 Lexington Avenue, Box 515, New York, New York 10010. 67 pages. \$22.50.

This book contains over 150 entries which, according to Center spokespersons, cover the full span of available technology that has been adapted and/or developed specifically for the blind and visually impaired. It also contains indexes by product and by vendor, a glossary that makes the data understandable to nontechnical readers, and even a "Before You Buy" section which offers a checklist of technical considerations and advice on how to select equipment appropriate to specific needs.

Philosophical and Historical Roots of Occupational Therapy. Karen Diasio Serritt, editor. The Haworth Press, Inc., 28 East 22 Street, New York, New York 10010. 113 pages. \$22.95, hard cover; \$17.95, soft cover; text soft price, \$9.95 (five or more copies only).

A monograph, also published as the journal, *Occupational Therapy in Mental Health*, Vol. 5, No. 3. This volume celebrates the history of the profession of occupational therapy, particularly in mental health. The underlying theme is how the profession can make its best possible contribution to society.

Biomechanical Measurement in Orthopaedic Practice. Oxford Medical Engineering Series: 5. Edited by Michael Whittle and Derek Harris. Oxford University Press, 200 Madison Avenue, New York, New York 10016. 296 pages. \$49.95.

This book is compiled for clinicians who are keen to obtain a better understanding of the current status of biomechanical measurement in orthopaedic practice. It is also for research workers wishing to know more about techniques they may be able to incorporate in their work. However, its main purpose is to help in building the bridge between orthopaedics and engineering.

Directory of College Facilities and Services for the Disabled, Second Edition. Edited by Carol H. Thomas and James L. Thomas. The Oryx Press, Suite 103, 2214 North Central at Encanto, Phoenix, Arizona 85004-1483. 410 pages. Clothbound, \$95.00.

This second edition contains 300 more entries than its predecessor, which was cited by the President's Committee on Employment for the Handicapped as one of the best books for and about disabled people published in 1983 and 1984.

This directory provides information on more than 2,300 programs and services available for disabled persons in a majority of postsecondary institutions within the United States and outlying areas, and for all Canadian provinces. It provides demographic data on each institution, describes the type of institution and

degree of certification offered, and gives information on the physical terrain.

Arranged alphabetically by state, territory or province, each entry also contains core information including the address of the institution, telephone number and a contact person.

New features include an index to disabilities served and an alphabetical listing of institutions, along with an up-to-date bibliography of reading materials. A resource list of associations, centers, organizations, societies, clearinghouses, databases, and print sources completes the book.

Occupational Therapy and Adolescents with Disability. Florence S. Cromwell, editor. The Haworth Press, Inc., 28 East 22 Street, New York, New York 10010. 158 pages. \$27.95, hard cover; \$19.95, soft cover; text soft price, \$9.95 (five or more copies).

A monograph, also published as the journal, *Occupational Therapy in Health Care*, Vol. 2, No. 3. The articles in this volume provide a comprehensive review of adolescence and of its impact on young people who are struggling with severe physical and psychological problems.

Competitive Employment: New Horizons for Severely Disabled Individuals. Paul Wehman, Ph.D. Brooks Publishing Co., P.O. Box 10624, Baltimore, Maryland 21285-0624. 274 pages. Paperback, \$17.95.

This book attempts to show how to match client skills with job environment requirements and to give the training techniques, including behavioral intervention strategies, needed to help severely disabled workers adjust to their jobs and typical nonhandicapped workers.

Arthritis and the Elderly. Roland W. Moskowitz, M.D., and Marie R. Haug, Ph.D., editors. Springer Publishing Company, Inc., 536 Broadway, New York, New York 10012. 195 pages. \$21.95.

This book provides information on the most recent scientific discoveries and management innovations, integrating the social and medical aspects of this most neglected major health problem of the elderly. Based on a symposium on arthritis and the elderly, sponsored by the Northeast Ohio Multipurpose Arthritis Center and the Center on Aging and Health of Case Western University, this book's themes form a progression from basic information on the pathophysiology of arthritis, through patient and related group behavior, forms of therapeutic interventions, the organizational aspects of health services delivery, and finally a prospective view of research priorities. All those concerned with a chronic disease that affects the quality of life of so large a number of elderly Americans will find the volume thought-provoking and useful.

Living Outside Inside. A disabled woman's experience. Towards a social and political perspective. Susan Hannaford. Canterbury Press, P.O. Box 2151C, Berkeley, California 94702. 150 pages. \$6.95, paperback.

This book is written by a woman experiencing for the first time the position of being a disabled person. A section of the book is devoted specifically to the disabled woman and her compounded situation.

The author died last year at the age of 36. It was her wish that proceeds from the book should go to organizations which promote self determination for disabled people.

Exceptional Children and Youth. Fourth Edition. An Introduction to Special Education. Edited by Norris G. Haring and Linda McCormick. Charles E. Merrill Publishing Co., Columbus, Ohio 43216. 595 pages. \$27.95.

This book is concerned with individuals who are exceptional from an educational standpoint, that is, who need different educational services than those provided to their peers. Subjects discussed in detail include students with communications disorders, visual impairments, learning disabilities, behavior disorders, and mental retardation, as well as students who are gifted and talented.

Proactive Vocational Habilitation. Eric H. Rudrud, Ph.D., Jon P. Ziarnik, Ph.D., Gail S. Bernstein, Ph.D., and Joseph M. Ferrara, Ph.D. Brooks Publishing Co., P.O. Box 10624, Baltimore, Maryland 21285-0624. 202 pages. Paperback, \$16.95.

This manual provides examples of field-tested *proactive* alternatives to the problems and difficulties encountered in vocational training of adults with handicapping conditions. It recommends anticipating and preventing problems instead of *reacting* to problems after they have occurred.

Functional Assessment in Rehabilitation. Edited by Andrew S. Halpern, Ph.D., and Marcus J. Fuhrer, Ph.D. Brooks Publishing Co., P.O. Box 10624, Baltimore, Maryland 21285-0624. Hardcover, \$23.95.

This book seeks to assist in the evaluation of rehabilitation patients and rehabilitation programs, in therapy planning, in the management of rehabilitation research, in psychological evaluation, and in vocational and educational assessment.

**Language Used
or
Used Language?**

On Style:

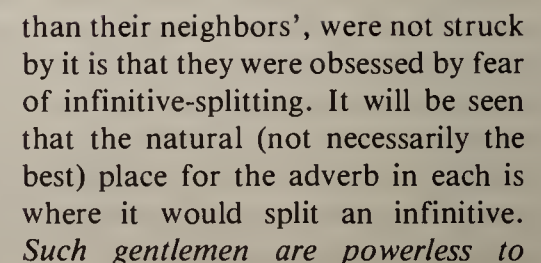
argue that, in the first example, logic is better served by its second rendition, since it follows cause (written) and effect (acceptability). No doubt. And the added case of verb-form integrity strengthens the case further. I opted for the first, however, on the basis of “flow” and “sound.” The sound of “are acceptably written” is smooth as compared to the slight hesitation occasioned by “are written acceptably.”

The very reason for rejection of the adverb's placement in the first example became the *raison d'être* for my second choice of "solely to discuss." Placement here gives pause and emphasis to "solely," which accents "discussion" while, concurrently, underlines the previous sentence, that the previous paragraphs are correctly written.

Consider the phrase (from the quotation) “. . . has promised *to increase greatly* its efforts . . .” The chosen rendition emphasizes “greatly” here because of the natural pause the reader wants to ascribe to it. The flow, however, would be enhanced by splitting the infinitive, “to greatly increase,” and would also bring the verb’s direct object closer to the verb. With some practice and initial thought, these stylistic decisions

To transpose the adverb before the infinitive (promise *greatly to increase* . . .), however, would be inadvisable even if grammatically tenable. Why? Because its conjunction between the two verbs, (“promise” and “to increase”) casts a doubt on its qualification: Does it “greatly promise” or does it “greatly increase”?

H. W. Fowler, in *Modern English Usage*, says, "The order of words in the following examples is bizarre enough to offend the least cultivated ear; the reason why the writers, whose ears were perhaps no worse



analyse correctly agricultural conditions. A body of Unionist employers which still has power to influence greatly opinion among those who work for them . . ."

And Theodore M. Bernstein, in *The Careful Writer*, tells us that "the natural position for a modifier is before the word it modifies . . . Thus the natural position for an adverb modifying an infinitive should be just ahead of the infinitive and just after the *to* (usually designated the 'sign of the infinitive')."

3) In the 1st paragraph, the relative (adjective) clause, "Who have the most to gain and lose from the outcome of such legislative and judicial battles" should minimally be separated by commas, given its length and the fact that it considerably separates the indirect object from its verb, "will ask." But the relative clause, in my estimation, is substantive enough to warrant a separate sentence: "And it will ask the psychologists and organizations to foot the bill. They have the most to gain or lose from such legislative and judicial battles."

In the above revision, the phrase "from the outcome" is deleted since gaining or losing naturally indicates an outcome. While the phrase is not tacitly wrong, it is like feeding pabulum to an adult. We grew teeth for sturdier stuff; we developed reason to, among other things, observe the obvious.

(Note, in the last sentence of the above paragraph, that I not only split an infinitive, but I did it with a whole phrase ("among other things") to give emphasis to the fact that these observations are only one area among other areas for consideration by the faculty of reasoning.)

4) The 2nd paragraph is generally plagued by a passive presentation, if not by the passive voice. The phrase,

"taken at the association's . . ." is introductory and should lead the paragraph with, "At the association's 93rd annual . . ."

"The Council of Representatives' decision" nicely compacts the original introductory words as does "association groups have been discussing" rather than the given "groups within the association have been discussing." So, too, would "the Council's unanimous vote" suc-



cinctly say "but the unanimous vote by the Council."

The phrase "is expected to hasten" can be rendered "should hasten" without detriment to thought but with economy of wordage.

Thus, the paragraph might be given, "At the Association's 93rd annual convention here this summer, the Council of Representatives' decision breaks sharply with the usual support method. Association groups have discussed a differential dues structure, but the Council's unanimous vote should hasten such efforts." The original paragraph consumed 57 words and its rewritten version used 38.

A word of caution, however; economy also can be counter productive. A case in point is the previously mentioned relative clause that brought too many elements into one sentence. Thus, more words and more form when needed. The guiding principle is not always "economy," but it *is* "clarity."

5) The length of such a dissertation

is bound to again rekindle a questioning of a principle that has been covered before in this space; to wit, "Is it proper for a magazine devoted to rehabilitation to use so much space for a non-rehabilitation topic such as English usage?" The answer, of course, is that our language is basic to communication among ourselves, our clients, and other agencies and people. Administrative and, even, therapeutic efficiency is dependent upon clear, precise, and effective communication. When these principles are not observed, that is, when our communication efforts are lacking, useless and time-consuming efforts are devoted in rectifying a situation which should not have existed in the first place. But, even more important than administrative time loss, is the injustice done to clients (and to taxpayers who support our agencies) when communications lead to wrong approaches or to confused efforts.

Cost effectiveness is first served at this basic communication level.

Survey Favorable on Polling Places

A recent survey conducted by the Ohio Office of the Secretary of State Sherrod Brown of the state's more than 8,000 polling places found that 89 percent meet statutory requirements for accessibility to persons with disabilities. A 1980 state law requires all polling places to be "free of barriers that would impede the entering and exiting of handicapped persons."

This law stipulates that the entrances of voting locations be level or that a nonskid ramp of not over eight percent gradient be provided, and that doors be at least 32 inches in width.

Placements

(Continued from page 17.)

resources of persons with impairments. Among them, are Marriott, Hilton, Radisson, Holiday Inns, Ramada, Hyatt, Sheraton, and Days Inn.

These listings are but samplings of the growing segments of the industry now increasing their attentiveness to the potential of good employees among willing workers who happen to have an impairment.

The survey results supply evidence that the food service industry and vocational rehabilitation are notably coming together. But observing this pairing does not foreclose on the long way yet to go. To achieve coordinated fusion of interests both must remove some barriers. For one, industry's management personnel must overcome apprehensions about taking on persons with disabilities and training and employing them as readily as they do nondisabled persons. The incentive to do so has been clearly demonstrated. Devoted and skilled counselors and other VR professionals are the potential employer's guarantee of receiving reliable job applicants. In fact, the VR professional becomes the employer's ally throughout the applicant's progress, from the period of training to complete success on the job.

Allies of the Industry

Essentially, VR professionals are interpersonally devoted to their clients. Their spirit of service derives from their own sense of personal being and an awareness of the privations of those they seek to help. The professional's purpose is to guide disabled people towards access to a greater share of life's abundance, that they may grow towards a deeper sense of their own human dignity, and that

through their own efforts they may secure their livelihood and greater independence.

VR professionals in larger and larger numbers see the food service industry as the avenue to these realities for their trainees. Also, they recognize industry's growing attention to their services and consequent cooperation in employing retarded, learning disabled, mentally restored, and physically impaired persons.

VR professionals acknowledge their need for greater familiarity with the workings of industry. Through more comfortable relations with personnel people, managers and foremen, by the use of on-site job analysis, and by bringing industry into advisory capacities in training programs, the technical aspects of skills training, social and work adjustment, and judging job-readiness can be enhanced.

Although industry is not a rehabilitation service, it is gradually recognizing and appreciating the professional's role in bringing a trainee to the point where he is successfully doing the job. First of all, knowing the ca-

disposed toward the person with deficiencies. Then, jobs exist where transportation does not. Enterprising employers have sought to induce public transportation to extend or route bus lines; also they have found ways to create car pools or to coordinate with others in providing van pickups.

Industry's Deficiencies:

Other problems emerge when employers lack training personnel, clear job descriptions, or plans to open to persons with disabilities real career opportunities. These deficiencies conflict with desirable conditions for proper training and retention of employees. They reduce placement to the order of just job fitting, and lead to eliminating anyone who does not measure up to undefined expectations.

Notwithstanding the problems involved with discovering places of employment for trainees in food services, professionals are finding a growing understanding by prospective employers, increasing degrees of collaboration, and industry initiatives with on-the-job training, especially

The survey results supply evidence that the food service industry and vocational rehabilitation are notably coming together.

capacity and competencies of the trainee, the professional is in a position to ease the way for the qualified person with a disability to become a productive employee. In the process of an applicant's learning successfully to fill a job, the management is dependent upon the professional's expertise in overseeing the transition.

The professional's services are not without some serious problems. Often enough there are jobs but no qualified trainees. Operations can be over-demanding or really not well-

among a number of chains and the larger organizations in the industry.

Industry recognizes its own obstacles to successful employment and retention. Primary among the critical barriers are: late hours, broken hours, limited hours (necessitating two jobs), stress situations, lack of benefits, and deficiency of incentives, besides the external problem of transportation. The forward looking employers also recognize the need to find some adequate solutions. Basically, they take a personalized view

Enterprising employers have sought to induce public transportation to extend or route bus lines.

of employees by providing improved training and defining jobs precisely and clearly, setting up attractive amenities, adopting systems of recognitions and rewards, posting opportunities for advancement, and involving employees even in the lowest grades in decision making. But lack of benefits remains a besetting problem not

likely to have an immediate or quick solution.

Currently, the rehabilitation profession is stressing its need to know more about management's goals, outlooks, approaches, and organization. Training programs for professionals are beginning to provide insights into the businessman's mind. Rehabilita-

tion training facilities are more and more drawing business people within their walls to benefit from their advice on training. Generally, food services through the National Restaurant Association's Project With Industry program has grown more knowledgeable and appreciative of rehabilitation's role in training a productive labor force for the industry.

A. Philip Nelan is Director of Handicapped Employment Programs, National Restaurant Association.

School for Deaf Expands Services

The Western Pennsylvania School for the Deaf is expanding its program to include a range of services which will be available to deaf and hard of hearing persons of all ages residing in the western part of the state.

In addition to the ongoing educational program for deaf children and adolescents, there will be a transitional training program, services and research in the area of mental health, drug and alcohol treatment, and research in the use and effectiveness of group therapy and cognitive behavioral therapy for deaf people.

Close cooperative work with community service agencies, including vocational rehabilitation, will be a mainstay of the new program.

Dr. Prasad Gets 2nd Year Grant

The Paralyzed Veterans of America's Spinal Cord Research Foundation has awarded a second year grant to Chandan Prasad, Ph.D., of Louisiana State University Medical Center for his work to examine the role of certain hormones in minimizing the effects of injuries

to the spinal cord.

Previous studies have shown that TRH (Thyro-tropin-releasing hormone) may have positive effects in minimizing permanent paralysis following an injury to the spinal cord. Dr. Prasad's research will further study the effects of TRH, a hormone which exists naturally in small concentrations in the brain.

ATBCB Closes 64 Cases

Since October 1984, the Architectural and Transportation Barriers Compliance Board (ATBCB) has closed 64 complaints—23 through voluntary action and 41 from lack of jurisdiction.



Corrective actions taken include:

- Repairing elevators in a Washington, D.C., metro station;
- Agreeing to install an elevator in

a Wisconsin building;

—Installing new doors and making public restrooms accessible in a Kentucky county municipal building;

—Relocating a Social Security Administration office to an accessible facility in Cleveland;

—Replacing entrance doors and installing a non-skid surface and handrails at a community college in Pennsylvania;

—Building a ramp at a Vermont post office;

—Removing a shopping cart gate at a Wisconsin store; and

—Installing a ramp, rails and automatic door at a federal courthouse in Texas.

Updegraff Named School for Deaf Superintendent

Dr. David R. Updegraff, Director of Marketing and Recruitment for Gallaudet College, has been named Superintendent for the Michigan School for the Deaf.

Dr. Updegraff, 46, who has held administrative positions at Gallaudet for the past 17 years, replaces former Superintendent Robert Gates, who resigned last August.



July-Aug.-Sept. 1986

AMERICAN REHABILITATION

Transition
PWI Evaluation
Computers and VR

**“Deafness is something
you put beside you
not in front of you.”**

LINDA BOVE / ACTRESS



PHOTO HELEN NESTOR

Linda Bove performed with The National Theatre of the Deaf for nine years.
She has also starred in the Tony Award winning show, *Children of a Lesser God*.

Believe in them. Break the barriers.

PRESIDENT'S COMMITTEE ON EMPLOYMENT OF THE HANDICAPPED, WASHINGTON D.C. 20210

AMERICAN REHABILITATION

Volume 12, Number 3 The weakest ink is better than the strongest memory. **July-Aug.-Sept. 1986**

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Projects With Industry: Its Role in Transition

James R. Geletka

Projects With Industry (PWI) is a national program of over 200 individual projects designed to facilitate employment of persons with disabilities. While individual PWI projects differ widely in both approach and sponsorship, they have several elements in common, including an emphasis on job placement services and a strong relationship with business and industry—the employers. Many of these projects are well established in their local communities, some for as long as 10 to 15 years, and they enjoy the long term confidence and support of employers who have benefited through participation in PWI.

A goal of PWI is that employers “own” the program. Nationwide, nearly 5,000 business persons and rehabilitation professionals donate time to PWI by serving on boards and advisory committees. Many PWI programs are incorporated organizations with industry/business executives serving on boards of directors. They set policy and goals and provide the leadership necessary to ensure success. In some instances PWI projects have even been designated in company operating procedures manuals as the primary resource for all recruiting and employment of persons with disabilities.

PWI spans a period of nine years and includes a network of 11 affiliated program sites working with over 700 employers. Over 4,300 persons with disabilities have been employed at annual salaries ranging from \$7,000 to \$62,000. A special program operating in five locations works only with Social Security Disability Insurance beneficiaries—among the most severely disabled—and in the past year has placed 119 persons in competitive employment. It is conservatively estimated that the 4,300 persons employed through EIF/PWI earn over \$43 million in salaries each year. PWI is a proven effective approach to

tion, review of a variety of transition project proposals funded by the Office of Special Education and Rehabilitative Services (OSERS), participation in workshops and training programs on transition services, including supported work/employment, personal interviews, site visits, and an examination of current literature. In addition, the president of EIF serves on an advisory committee for technical assistance to exemplary state projects.

This experience and study served to confirm the supposition that Projects With Industry holds great potential as an intervention strategy to

Studies show that on the national level as many as 50 to 80 percent of working age adults who report a disability are unemployed.

employment for disabled individuals.

For over a year, EIF special projects staff have studied the problem of assisting students with disabilities to make a successful transition from school to work. This has been done through participation on the Montgomery County, Maryland, Task Force on Transition, joint planning for transition programs within the Montgomery County Public Schools, review of over 70 “transition programs” in operation across the na-

assist students to make a successful transition from school to work. With minimal additional staff and resources, existing PWI projects could expand their efforts to include students-in-transition as a target group. In fact, many PWI projects are already serving them as part of their current operations. EIF affiliated projects in Massachusetts, Minnesota, Arizona, and California all have, to one degree or another, established coordination relationships with

public schools, colleges, adult education, and adult service providers who refer students in transition to PWI for job placement. PWI program operators such as the International Association of Machinists and Aerospace Workers, the MacDonald Training Center, the National Council for Therapy and Rehabilitation through Horticulture, the University of Washington, and others have developed specific programs for disabled youth in cooperation with OSERS' Office of Special Education.

There is no federal or state program to provide the long term supportive assistance necessary for severely disabled students over age 22 to make the transition from school to work.

Why Projects With Industry? Studies show that on the national level as many as 50 to 80 percent of working age adults who report a disability are unemployed. While follow-up data on special education graduates nationally is sparse, local numbers and experience show that a great many students, upon leaving school, have serious difficulty both in obtaining employment and then obtaining appropriate support services to help them remain employed. Graduates tend to lack adequate basic skills, job seeking skills, work skills, and behaviors. Few have had useful on-the-job training experiences while in school. Further, for most students with disabilities few options are available for pursuing education beyond high school. Post-secondary institutions lack the same comprehensive federal mandate to educate students as does the school system. There is no federal or state program to provide the long term supportive assistance neces-

sary for severely disabled students over age 22 to make the transition from school to work.

Many students "fall between the cracks" following graduation (if in fact they make it that far). The reasons for this are many and are often complicated by uniquely personal circumstances. Students often do not know how to make effective use of generally available adult services or special services for disabled adults; parents may be uninformed about work options and available ser-

vices; employers may not know where to find job applicants who are disabled nor how to find the services that would help them adapt the job to the abilities of the applicant; and students may "find" their way into jobs for which they are not suited and which bring inherent failure and discouragement. As a result many graduates cannot find or keep jobs that provide adequate financial compensation, satisfaction, and opportunity for growth.

An examination of the needs of five constituents to the transition process—students, parents, school years providers, adult service providers, and employers—reveals that most of them can be met through effective coordination of services provided by existing community institutions such as schools, community colleges, adult education, adult service providers, state developmental disabilities agencies, state rehabilitation agencies, medicaid and others. The challenge

is to focus the resources of these organizations toward the needs of students in transition, create linkages between them, identify gaps in services, bolster resources for underfunded services, and *improve the system relationships with employers*. The latter may well be the most important element, since it is the employer who controls the jobs. If employment, whether supported or competitive, is an end goal for the majority of students in transition, then the employer's needs, concerns and ability to contribute must be integrated into the transition process. No transition or supported work/employment program can be successful without employer participation.

In an effort to determine how many persons with disabilities are employed and what barriers employers believe prevent or limit employability, 40 Montgomery County employers ranging in size from 100 to 5,000 employees were surveyed. They comprised a geographical cross section of diverse businesses and industries. The results of the survey revealed that:

1. Far more companies have written policies than have active programs for employing persons with disabilities, indicating that employers might hire persons with disabilities if they had sufficient knowledge and support.

2. Employers do not know enough about how to assess the potential of, and how to deal with, persons with disabilities.

3. Employers do not know where to locate applicants with disabilities.

4. The majority of employers are willing to work with public and private adult agencies *provided the agencies understand job requirements and the nature of the business*.

5. Employers appear to value appropriate work attitudes and job

skills more than government employment incentives.

6. Employers feel that school personnel should know more about the business community and about employer needs.

7. Employers feel that, while in school, students should learn more about the local business community.

No transition or supported work/employment program can be successful without employer participation.

8. Better communication channels must be established between education, private and public adult services agencies, government, and business.

Clearly, without employer commitment, efforts to place disabled students in transition in jobs appropriate to their capabilities is difficult, at best. Projects With Industry excels in meeting business' needs in this area and, as reported in the Policy Studies Associates recent independent evaluation, PWI enjoys a "high level of employer satisfaction."

Further complicating the transition process is the fact that for the 1.1 million students now enrolled in special education programs, the schools have no formal responsibility for developing a program of services for them after they leave school, and the adult service delivery system which they must confront is "complex, diffuse and often uncoordinated" according to a Department of Health and Human Services Study.

Even in enlightened states such as California where efforts toward developing effective transition processes in the schools (such as WorkAbility in the high schools and WorkAbility II in community colleges) have been in place for some time, many graduates receive no assistance in finding employment once they leave school.

tives of school districts, community colleges, adult education programs and adult service providers in the areas served by EIF/PWI in the Bay Area of California revealed that:

1. Disabled students may have excellent vocational experiences with secondary school based programs, then they are graduated. For many,

the job they had while in school doesn't work out (either it ends or they get fired), or there is no job at all for them.

2. Some college students, particularly junior college disabled special education students, need special assistance with placement, especially those who have no job seeking skills.

3. Adult education graduates with General Educational Development (GED) certificates, many of whom were special education students who dropped out of school, need assistance in finding jobs.

4. Graduates of secondary programs, colleges, or adult education may be referred to the state rehabilitation agency but may *not* become active cases because of: non-acceptance under current state agency policies and practices; parents' or students' negative experience with government agencies and related paperwork; parents' or students' concern about being labeled "retarded" or "disabled" and in *need* of rehabilitation services; and refusal to get the medical examination required to become a state rehabilitation agency client.

Thus, many disabled students leave excellent programs to go home instead of to work, or they get a series of inappropriate jobs each of which they lose after a short time. This

experience continues the cycle of poor self-concept and failure which leads to "bad attitude" and lack of motivation, further hampering the efforts toward personal growth and independence, and serving only to encumber the lives of these persons.

Because they have well-established, ongoing relationships with employers, PWI programs can play a unique and important part in the transition process. Furthermore, PWI can help in the establishment of formalized relationships with schools, community colleges, adult education, and adult service providers. These relationships could include the development of protocols for identification and referral of students to PWI and the state rehabilitation agency, and placement and followup of students employed through PWI.

In an effort to make EIF/PWI programs more responsive to the needs of students in transition, EIF has developed a plan, the objectives of which are to:

1. Provide job placement assistance to students in transition from school and adult education to work, whether it be supported or competitive.

2. Prevent interruptions in services leading to employment.

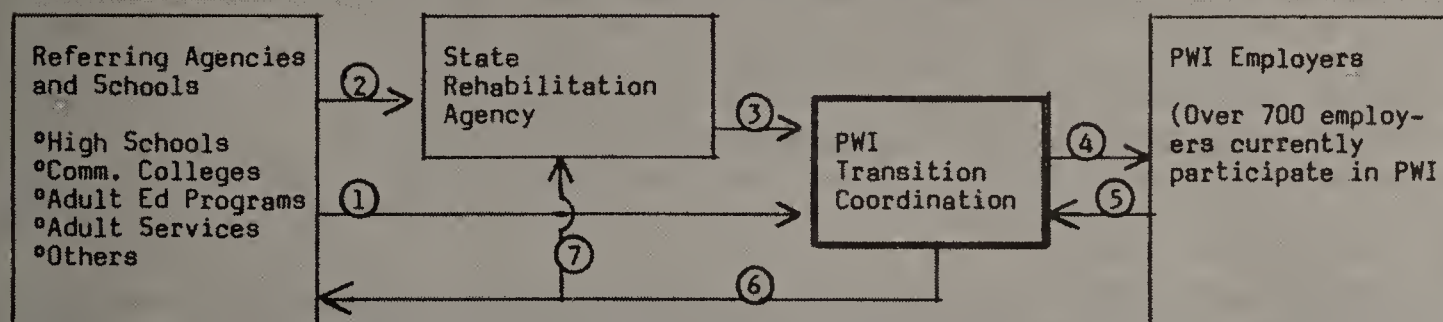
3. Provide assistance to students, their families and their counselors in preparing for employment.

4. Facilitate planning and inter-agency relationships among parents, public schools, the state developmental disabilities program, the state rehabilitation agency, community colleges, and adult education/service programs.

A preliminary model incorporating successful PWI methodology has been developed which describes the role of PWI in relationship to other participating organizations. It should be noted that this model focuses on

Preliminary Model

PWI Transition Coordination/Placement Services



- ① Persons may be referred to PWI by a cooperating school/agency or they may come on their own. In each case, the PWI employment specialist will attempt to refer the individual to the state rehabilitation agency. If the individual is not willing to become a rehabilitation client (so they may obtain assistance with Schedule A letters, OJT, assistive equipment, etc.) the PWI employment specialist will proceed with placement assistance and will counsel the individual toward becoming affiliated with the state agency at a later time.
- ② Disabled students in transition may become state rehabilitation clients through outreach to schools/agencies by state rehabilitation counselors.
- ③ Through a cooperative agreement, state rehabilitation counselors may choose to refer clients to PWI for placement. In addition, persons who may be eligible for services, but for various reasons elect not to become clients of the state rehabilitation agency may also be referred to PWI for placement assistance.
- ④ PWI employment specialists place students in jobs with employers. Contact with employers is maintained through a mix of marketing strategies. Services to employers include provision of educational information on issues related to employment of disabled persons.
- ⑤ Participating employers provide feedback on placements, job market information, OJT training sites, and advice and counsel to PWI. In addition, employers serve on PWI's board of directors, and on a variety of special committees including the employment committee which advises staff on placement strategies and in most areas, directs the marketing program.
- ⑥ & ⑦ PWI employment specialists coordinate the personnel needs and requirements of employers with the referring agencies and the state rehabilitation agency. This includes frequent contact with staff, provision of resource materials on job seeking skills and resume preparation, direct contact with students and their parents to explain services, provision of labor market information to staff, provision of advice and counsel to agency/school program planning and policy-setting groups, feedback on placement activity.

interagency networking and employer involvement, two elements commonly cited in the literature as essential components of exemplary transition programs.

The EIF/PWI marketing model

has been documented in an NIHR report titled *A Creative Partnership: Developing a Project With Industry*. This approach is based on EIF's eight years of experience in conducting Projects With Industry placement ac-

tivities, and it is focused on the task of creating a receptive environment among electronics companies and other employers leading to employ-

(Continued on page 14.) 5

Telecommuting: Homebased Computer-Related Employment for Severely Disabled Persons

James Vagnoni

The last few years have witnessed a great deal of bally-hoo over the high tech job. Not only in vocational rehabilitation for disabled persons, but in the broad spectrum of employment, planners and policy makers have been hasty to grant knighthood to the high tech boom and exhort it to slay the dragon of unemployment. As the dust settles, however, unhappily too few displaced factory workers will be absorbed into high tech jobs. While the projections of increases in certain high tech jobs for the future may not accommodate all displaced workers as well as the new engineering and computer science graduates just finishing college, new jobs are being developed in high tech areas, and can result in opportunities for severely handicapped workers—if they are prepared for these new jobs.^{1, 10, 24}

The dynamic nature of the high technology job market, and in particular the field of data processing, will create potential opportunities for employment. As new jobs develop, an inevitable shortfall of qualified and skilled personnel will require employers to disregard classic attitudinal prejudice and be open to employ disabled persons if they possess the needed state-of-the-art training and capabilities. The trick, of course, is

developing the foresight to predict where new jobs—in sufficient numbers—will be developing.^{17, 29}

One area of potential opportunity lies in the regeneration of an old idea with a new name—telecommuting. The term “telecommuting” was coined in 1973,²¹ and will be defined here as the practice of working in one’s home, linked to an office or to the outside business world of customers and clients via some type of computer or computer terminal and telephone lines. Other names used to capture the notion of computer work in the home are “electronic cottage industry” and “telework.”

The late seventies saw a fair amount of attention paid to industry experiments of work-at-home pilot projects. Primarily financial institutions (mostly banks and insurance companies) were the first to experiment with at-home employment. However, these first corporate efforts at initiating homebased employment were not successful. Some of the large corporations among these early experimenters were Chicago’s Continental Illinois National Bank, Equitable Life Insurance, Denver’s Mountain Bell Telephone, and New York’s Continental Bank.¹⁴

In addition to these corporate based experiments, the late seventies

also saw individual entrepreneurial efforts at establishing computing cottage industries. These business ventures, mostly the work of experienced computer programmers, established software houses and contract programming firms and received immediate media attention as the dawn of the new age of “at-home work.” In 1980, important articles about these types of businesses appeared in the *New York Times* and the *Wall Street Journal*. But, in both instances, the software developers had few corporate clients agreeing to cottage industry structures; instead, most required that the programmers be on site at the firm’s offices.²³

Having a computer terminal in one’s home in 1978 or even now is not a new phenomenon in the corporate world. Many firms have allowed certain executives and many of their capable programmers to have terminals installed in their homes, not as an alternative to the corporation’s regular in-office time requirements, but as extra work, in addition to their 9 to 5 on-site schedule.²²

Ironically, one of the more successful at-home contract programming efforts to develop in the late seventies served persons with severe physical disabilities. Lift, Inc., a Chicago based nonprofit organization, has

been in business now for eight years, and has extended its influence beyond Chicago to Phoenix, New York City, Los Angeles, and other areas. Although the number of Lift's homebased computer programmers is relatively small, this program has been far and away the most successful project to attempt to establish homebased employment for handicapped persons.

Other homebased employment projects for handicapped persons have been developed, most notably a

Contributing to the few numbers of homebased employment successes, both within the general public and especially for programs serving severely disabled persons whose skills were often entry level, were sets of circumstances that created a reticence among companies to go homebased. In particular, companies were hesitant to go homebased with their mainframe oriented data processing. In 1979, in Philadelphia, data processing executives (who worked with the Hospital of the University of Pennsyl-

third and serious barrier to employing entry level home-bound programmers is their lack of experience. *Without exception*, companies believe that programmers and analysts require at least two to three years of work experience before they can be productive and capable at home.

A fourth factor was the frequent personal contact needed between new and experienced programmers. Data processing projects generally require programmers to work in teams on large sets of programs and to attend frequent meetings among programming staff. Entry level personnel require even more contact with experienced programmers in order to better learn their jobs. Finally, perhaps one of the more critical factors identified was concern about company security. Most firms expressed a strong hesitancy to locate a terminal in an entry level contract programmer's home out of fear of potential damage to software systems or fear of computer theft.^{2,28}

New jobs are being developed in high tech areas, and can result in opportunities for severely handicapped workers—if they are prepared.

five-year research and demonstration project funded by the Department of Education at George Washington University, and Control Data Corporation's Homework program. The success and consistency of the Lift program's continued placements have certainly supported the feasibility of homebased contractual programming for handicapped persons.^{7,12,18,19,29}

A recently formed organization meeting with success in offering homebased employment is HandiSoft in Philadelphia. Begun in 1984, HandiSoft is flexible in its approach, offering work in the home or in a remote location, primarily its own facility. The work location decision is based on an individual's wishes and physical capabilities. Like Lift, HandiSoft arranges contractual employment (with industry customers) for its disabled staff. In two years, HandiSoft has employed 21 handicapped persons, ten of whom have left HandiSoft to work with the business clients with whom they worked contractually. Of that 21, five HandiSoft employees chose to be homebased.^{9,29}

vania Projects With Industry Program) were surveyed regarding home-bound employment. The responses to the survey were consistent with the barriers, as reported in trade literature, that hamper wide-scale work at home as an alternative to the office.

Barriers to Telecommuting

First, employers were reluctant to take the risk of engaging in such a novel endeavor. Even today, studies report that corporations are curious

Advantages of Telecommuting for the Business Community

While these barriers remain, the incredible technological advancement of the last three to four years in microcomputers has mitigated some

The trick, of course, is developing the foresight to predict where new jobs—in sufficient numbers—will be developing.

about at-home work situations but are not eager to take the gamble in being the ground breaker. Executives shared a second concern regarding their span of managerial control over at-home workers. Managerial interaction is viewed as a necessity, given the coordination and integration surrounding the complex nature of most firm's data processing projects. A

of these concerns. Telecommuting enthusiasts, because of the microcomputer (particularly, the IBM Personal Computer), have predicted anywhere from 10 to 12 million homebased telecommuters by the end of the 1980's. What, then, are the advantages that these forecasters cite so enthusiastically?

The most frequently cited advantage to telecommuting is the opportunity it presents employers to recruit persons who would be otherwise unable to go to work in an office. In a review of the literature, persons with severe disabilities and mothers with children are consistently numbered among those who would benefit by "at-home work." Second, a company could retain capable employees who might have to resign because of the onset of a disability, childcare responsibilities, relocation, or even reasons of personal preference.

A third advantage of off-site work for employers is the ability to control office space cost. This advantage would not only apply to a company seeking to reduce overhead expenses and building leases, but might also serve rapidly growing firms who could delay the costly acquisition of space until their new businesses were solid and profitable. Telecommuting would also allow for short term staffing needs to be met without the addition of permanent office space. A fourth and related advantage would allow companies to lease space in their buildings, vacated by employees now working at home, to outside tenants.

A fifth advantage frequently cited would be the ability to better balance work loads. The demand for computer time during regular working hours could be lessened by employees working at home who would not be tied to a nine-to-five clock.

The sum of these benefits brings the basic desired business bottom line: decreased costs and higher productivity for every dollar spent.^{5,6,13}

Advantages of Telecommuting for the Individual

The most frequently cited advantage for an individual worker is avoidance of the daily commute.

The late 70's saw a fair amount of attention paid to industry experiments of work-at-home projects.

Advocates of telecommuting note that workers spend an average of ten hours per week commuting, which with telecommuting could mean a 520 hour yearly increase in time available for individual workers. Indeed, "at-home" employment was a much discussed idea in 1979 and 1980 during the energy crisis. One article noted that if the prediction of 10 million at-home workers should come to pass, enough gasoline would be saved to totally eliminate the need for importing Arab oil. Talk about wishful thinking.¹⁶

Of course, personal independence/freedom for an individual is a commonly noted benefit of telework; and, telework jobs, by eliminating the commute, will save the home-worker money. Estimates range from \$100 to \$400 per month in lunch, commuting, and work clothing expenses. Work-at-home has meant significant increases in productivity and increased income for some workers.

Disadvantages of Telecommuting

Not surprisingly, while advantages to work-at-home electronic cottage industries are to be found, so are disadvantages. Primary among the disadvantages noted is that people begin to miss the social contact of the work environment. With the exception of certain types of workaholics who resent the distraction of other people, most people desire the social setting of the office environment. Also, working at home requires a great deal of self discipline. The office structure facilitates the accomplishment of specific job tasks. Employers might have to find a

means of assessing an individual's ability to work independently before permitting an "at-home" job situation.

Needless to say, individuals who are ambitious and career minded might jeopardize their advancement in a company if they work at home. If the dictum "out of sight, out of mind" applies, the teleworker could be at a distinct disadvantage to the go-getter who displays his or her skill in full view of the boss.

Additionally, being at home presents its own set of distractions. While some marriages could be enhanced by increased contact between spouses, others might suffer. Young children may not understand a parent's work requirements and demand constant or frequent attention. Door to door vendors, neighbors, even "telemarketers" may serve to increase the distractions often present in a home setting.

A final disadvantage to at-home workers is that firms which do allow "telework" have been reluctant to provide the same benefits for the at-home worker that are provided to the on-site staff—particularly nonprofessional employees. In fact, labor unions have taken a strong stance in opposition to electronic cottage industries because companies can easily move to piece work employment which might create employee exploitation. Unions also foresee significant difficulty in organizing a group as scattered as workers employed in their homes.

For a business, the managerial challenges of telecommuting are formidable and the long list of barriers include: guaranteeing the

maintenance of their equipment when it is located in an individual's home; managing a staff spread out in remote locations; balancing assignments between persons who are eager and energetic and individuals who are less motivated; forgoing traditional management structures to experiment with off-site employees; and, as noted, facing certain security risks in leaving their computer systems potentially vulnerable via remote access.^{2, 4, 5, 15}

Telecommuting Jobs

Certain types of highly skilled professional level work has been particularly adaptable to the electronic cottage. Naturally, consulting in microcomputers is high on the list among the more successful at-home jobs. Most microcomputer consultants are self-employed, having left previous industry positions to strike out on their own. The microcomputer has been a boon to private consultants in almost every field from data processing to investment analysis to word processing.

Advancements in software have only increased the types of work possible to do at home. Word processing packages enhance the production of proposals and reports. Spreadsheet software allows for complex budgeting and numbers manipulation. Sophisticated data base packages give small businesses the data processing capabilities once only available on costly mini or mainframe systems. Consultants who can enhance the usage of microcomputers and software packages effectively are in increasing demand.

An obvious area of telecommuting employment is computer programming. Some managers have allowed off-site work as long as programmers attend worksite meetings to discuss project requirements. However,

though a "natural" telecommuting job, for the reasons cited above, most employers remain hesitant to engage in wide scale homebased computer programming.

Writing/publications is another area that particularly lends itself to work-at-home endeavors. The word processing and telecommunications capabilities of microcomputers allow for rapid transmission of documents from the home to an office site. Persons involved in independent areas of work such as writing and research are the group for whom the most significant gain in productivity in working at home has been noted. Such professionals develop personalized work habits that allow for individualized approaches to the completion of assigned work. These professionals

telephone line expenses, the corporation benefits extensively since the pay arrangements are usually on a per unit basis. A report in *Best's Review* estimates that an insurance company would save a thousand dollars every month for each at-home claim examiner.⁸ Bookkeeping is another nonprofessional job that can be performed at home with a microcomputer and spreadsheet programs.

Finally, telemarketing and customer services, job areas with high projected growth rates, in all likelihood, will be developed for at-home employment. Assuming automation, such jobs would require telephone interaction between teleworkers and customers to encourage certain purchases or resolve problems with purchases already made, then logging

Even today, studies report that corporations are curious about at-home work situations but are not eager to take the gamble in being the ground breaker.

tend to work *longer* hours in at-home settings than in an office environment.^{22, 26}

In the nonprofessional realm, word processing both independently and for companies is an area where telecommuting might have wide scale acceptance. Certainly technological advances such as voice communications, rapid telecommunications, and optical scanners increase the potentials for successful homebased word processing.

The insurance industry has used homebased workers to process and examine claims. Homebased telecommuters in these areas tend to earn less money than workers at the job site, generally forfeit benefits, and take on the cost of leasing their equipment as well. While companies frequently assume the installation and

these calls and their outcomes directly into a computer.

The common elements among the nonprofessional at-home job areas would be a high degree of routine information handling and heavy use of terminals, microcomputers and telephones. The tasks involved—moving, manipulating or retrieving certain data—could be easily measured in terms of quality or quantity.

To summarize, the barriers impeding on a wide scale the electronic cottage industry seem formidable. Nevertheless, projections now estimate that between one-twelfth and one-tenth of the working population will be employed in their homes in the next decade. Certain entrepreneurial and professional telecommuting endeavors promise good pay

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Profile of Learning Disabled Persons in the Rehabilitation Program

Lawrence I. Mars

Introduction

In 1981, state vocational rehabilitation agencies were asked to employ a new code to identify those of their clients having a learning disability as the major or secondary disabling condition. Using the terminology of the American Psychiatric Association's Diagnostic and Statistical Manual (DSM-III, 1980), the new grouping was referred to as "specific developmental disorders." Fiscal year 1983 was the first year for which tabulation of data for the new disability grouping—referred to hereafter as "learning disabilities" (LD)—was possible through the Case Service Report (RSA-300 System). Forty-four state rehabilitation agencies and the District of Columbia reported LD data for FY 1983. It is estimated that if the seven remaining sizable state agencies had reported, approximately 3,000 rehabilitations of the LD population would have been counted instead of the 2,696 cases upon which much of this analysis is based. What follows is a brief profile of the LD clientele in the state-federal VR program as seen in the characteristics of those whose cases were closed out in FY 1983 compared to closed cases among the non-LD population. The comparisons will show that LD clients were dramatically different from other clients in who they were,

how their cases were processed through the rehabilitation service system, and in the outcomes they experienced.

Matters to Consider in Serving Learning Disabled Clients

Although FY 1983 was the first year in which learning disabled persons could be identified in the Case Service Report, at least one major issue quickly surfaced. The recent emphasis on providing services to this disability group appears, to some degree, to run counter to the emphasis in the Rehabilitation Act on serving severely disabled persons on a priority basis. Only a minority of learning disabled persons (39.5 percent) rehabilitated in FY 1983 were classified as severely disabled compared to 59.0 percent of the rehabilitated non-LD clientele. Continued emphasis on serving severely disabled persons will likely mean that the growth of LD clients in state agency caseloads will be curtailed after a short period of expansion since they are not presently a good source of severely disabled persons. To offset this development, it may be necessary to establish a specific definition of severity of disability for LD clients which would allow a more accurate classification of

LD clients as either LD or severely LD. Another issue of interest is the relationship of LD to mental retardation (MR). The inclusion of an LD category may have an impact on the use of the MR classification.

A matter worth monitoring to ascertain its significance is the growth in the proportion of rehabilitated persons classified as mildly mentally retarded since the learning disabled were first identified in state agency caseloads. Prior to 1981, the mildly retarded had been declining in proportion.

Personal and Program-Related Characteristics of LD Clients

Closures/Rehabilitation Rate

The number of persons whose major disabling condition was identified as a learning disability and who were vocationally rehabilitated in FY 1983 totalled 2,696. This total amounted to 1.3 percent of all persons rehabilitated that year. State agencies closed out another 1,361 cases of LD clients who could not be rehabilitated. These individuals constituted one percent of all persons who were not rehabilitated in FY 1983. The rehabilitation rate for LD clients—rehabilitations as a percent of the sum of rehabilitations and nonrehabilita-

**Selected Characteristics of Learning Disabled and Non-Learning
Disabled Persons Rehabilitated in Fiscal Year 1983**

<u>Characteristics</u>	<u>Learning Disabled</u>	<u>Non-Learning Disabled</u>
Total Rehabilitated	2,696	205,898
(Figures below are percents unless otherwise specified.)		
Under Age 18	26.4	9.2
Ages 18-19	36.5	9.7
Age 50 and Over	1.0	14.3
Mean Age at Referral	21.0	32.7
Men	72.7	55.0
Family Income \$600 +	52.2	32.9
On Public Assistance	6.9	15.6
Competitively Employed at Referral	12.5	14.4
Nonworking Students at Referral	35.6	13.3
Competitively Employed at Closure	93.0	76.6
Homemakers at Closure	2.2	12.6
With Earnings at Referral	13.4	15.8
Mean Weekly Earnings at Referral	\$14.40	\$21.40
With Earnings at Closure	97.5	86.8
Mean Weekly Earnings at Closure	\$146.80	\$141.60
Service Occupations	35.3	22.0
Structural Occupations	12.2	7.7
Professional Occupations	4.1	12.5
7-24 Months in VR	69.8	53.0
Mean Months in VR	18.2	22.5
Receiving Restoration	8.0	39.0
Receiving Training	65.7	52.5
Severely Disabled	39.5	59.0
Mean Cost of Services	\$876.50	\$1,484.90

Note: Limited space does not permit presentation of the many tables of data supporting the analysis, especially those showing the rehabilitation rates. Individuals wanting more statistical detail may contact the author.

Rehabilitation rates were highest for both LD and non-LD clients if family incomes were at least \$500 a month.

tions—came to 66.5 percent, compared to a rehabilitation rate of 61.6 percent among non-LD clients. The growth of LD clients in state agency caseloads may be seen in final data for FY 1984 when 4,906 LD persons were vocationally rehabilitated, encompassing 2.2 percent of all individuals rehabilitated that year. Preliminary data for FY 1985 indicate that LD rehabilitations will exceed 5,500 persons and account for approximately 2.6 percent of all persons rehabilitated. (Detailed characteristics of LD clients rehabilitated in fiscal years 1984 and 1985 are not available at this writing.)

Age at Referral

The most striking difference between LD and non-LD clients was their age at the time of referral for rehabilitation. Over a quarter (26.4 percent) of the rehabilitated LD clients were under 18 years of age at referral, compared to only 9.2 percent of the non-LD group. More than a third (36.5 percent) of the LD clientele were 18 or 19 years old at referral compared to only 9.7 percent of the non-LD clients. At the other end of the age spectrum, only one percent of the LD clients were 50 years old or over at referral, while 14.3 percent of the non-LD clients were in this older age grouping. The mean age of rehabilitated LD clients at referral was 21.0 years, compared to 32.7 years for the comparable non-LD group.

Among the LD population, the highest rehabilitation rate—70.5 percent—was associated with persons 18 or 19 years old at referral. This

rehabilitation rate was much higher than for the groupings of LD clients under 18 years old and 20-24 years old at referral (63.1 and 64.4 percent, respectively). It is presumed that the recency of high school graduation is a positive factor in helping state agencies to effect a successful rehabilitation. The non-LD clients exhibited little change in the rehabilitation rate through the mid-40's (approximately 60 percent). Thereafter, the rehabilitation rate rose dramatically as the homemaking closure was employed with greater frequency.

Sex

The overwhelming majority of rehabilitated LD clients were males (72.7 percent). This contrasted sharply with the male majority of only 55.0 percent among non-LD clientele. Even more surprising was the finding that the rehabilitation rate

for male LD closures was higher than the rate for female closures—67.6 percent versus 63.9 percent, respectively. This reverses the typical pattern in the state-federal program where the rehabilitation rate for females exceeds that for males. Among non-LD closures in FY 1983, for example, 65.1 percent of the females and 58.9 percent of the males were rehabilitated. Historically higher rehabilitation rates for females is associated with a much higher prevalence of the homemaking closure among them. With the homemaking closure unlikely for the young people

comprising the LD population, the outcomes available to males and females are comparable. For reasons not obvious from the data displayed, however, state agencies found it somewhat easier to rehabilitate LD males than LD females.

Family Income

The families of rehabilitated learning disabled clients had higher incomes than their non-LD counterparts. Over half (52.2 percent) of the LD clients and only 32.9 percent of the non-LD clients resided in families whose income exceeded \$600 in the month before referral. Rehabilitation rates were highest for both LD and non-LD clients if family incomes were at least \$500 a month.

Public Assistance Status at Referral

Given the higher family incomes of LD clients, it is not surprising that fewer of them were on public assistance at referral than was the case among the non-LD clients. Only 6.9 percent of the rehabilitated LD client-

LD clients were much more likely than their non-LD counterparts to be rehabilitated into competitive employment.

tele were welfare recipients at referral compared to 15.6 percent of the non-LD group. For both the LD and non-LD groups, the welfare recipient was much less likely to be rehabilitated than was the nonrecipient. This discrepancy was especially pronounced among LD clients whose rehabilitation rate was only 47.7 percent if they were welfare recipients and 68.9 percent if they were not recipients of public assistance.

Work Status at Referral

Only 12.5 percent of rehabilitated LD clients and 14.4 percent of the

non-LD group were competitively employed at referral. A much larger proportion of the rehabilitated LD group was classified as not working by virtue of being a student (35.6 percent versus 13.3 percent of the non-LD clientele). Approximately 80 percent of both LD and non-LD closures competitively employed at

Training had a more positive impact on the LD clientele.

referral were successfully rehabilitated. Much lower rehabilitation rates were observed for both groups when individuals were not working at referral, roughly 57 to 67 percent, depending upon the type of non-working status and disability.

Work Status at Closure

LD clients were much more likely than their non-LD counterparts to be rehabilitated into competitive employment, with 93.0 percent compared to 76.6 percent. Conversely, they were much less likely to be classified as homemakers—2.2 percent versus 12.6 percent, for LD and non-LD clients, respectively. Clearly, this finding is closely allied to the age difference in the two groups where few of the LD clients were old enough to be considered as candidates for a homemaking closure.

Weekly Earnings at Referral

The great majority of rehabilitated clients had no earnings at referral regardless of type of disability. Only 13.4 percent of LD clients and 15.8 percent of non-LD clients reported any earnings in the week before referral. The mean weekly earnings for LD clients at referral, including the vast majority with no earnings at all, came to \$14.40 compared to \$21.40 for the non-LD group. For the relatively few wage earners, mean earn-

ings of LD workers at referral came to \$107.70, for non-LD workers it was \$135.40.

For both groups, non-wage earners were much less likely than wage earners to be successfully rehabilitated. The rehabilitation rate for non-wage earning LD clients was 64.8 percent compared to 79.4 percent for persons

with some earnings. For non-LD clients, the rehabilitation rate was only 59.1 percent for non-earners compared to 79.2 percent for those who had some earnings in the week before referral.

Weekly Earnings at Closure

Since more of the rehabilitated LD clients were competitively employed, it is not surprising to find that more of them had some earnings in the week before closure, 97.5 percent compared to 86.8 percent of the successfully rehabilitated non-LD group. Greater proportions of the non-LD clientele, however, were found to have had weekly earnings at closure

The type of training producing the highest rehabilitation rates for both types of clients was on-the-job training.

of \$200 or more—25.1 percent versus 18.4 percent of the LD group. This difference is more pronounced at earnings levels of \$300 a week and over. The discrepancy is understandable in terms of the greater work experience of non-LD clients. The mean weekly earnings at closure of rehabilitated LD persons, including those with no earnings, came to \$146.80 compared to \$141.60 for the non-LD group. When the non-wage earners are excluded from the

computation of the mean, the non-LD group has higher earnings—\$163.00 per week versus \$150.70 per week for the LD group, another indication of the greater work experience of the non-LD population.

Occupation at Closure

The distribution of occupational groupings among rehabilitated learning disabled clients differed considerably from that of the non-LD population. Over one-third (35.3 percent) of LD persons were rehabilitated into service occupations compared to only 22.0 percent of the non-LD group. The LD clientele also exceeded their non-LD counterparts in all major groupings of industrial occupations with the biggest difference showing up in structural occupations (e.g., a variety of construction jobs, including welding, cutting, painting, and metal fabrication)—12.2 percent versus 7.7 percent of the non-LD people. Members of the non-LD group were far likelier than learning disabled persons to be placed into professional occupations, clerical and sales positions and special vocational rehabilitation occupations, such as homemak-

ing, unpaid family work and sheltered workshop work.

Months Spent in Vocational Rehabilitation

The distribution of the months spent in vocational rehabilitation by the LD population rehabilitated in FY 1983 was much more narrowly defined than the distribution of months for the non-LD group. This

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NEWS, NOTES, ANNOUNCEMENTS

"Access to Skies" Meets Sept. 22-23

Rehabilitation International, USA, has announced the fourth annual Access to the Skies meeting to be held September 22-23 in Chicago. The Paralyzed Veterans of America (PVA) and its eastern chapter (EPVA) will co-sponsor the meeting which will bring together people from around the world who are working on accessible air travel for visually impaired persons, wheelchair users, the aged, and other special populations. Attendees will include representatives from the airline and travel industries, government agencies, consumer groups, rehabilitation specialists, and manufacturers.

Computer Conference Scheduled Oct. 23-25

The fourth annual Closing the Gap Conference will be held October 23-25 at the Radisson South High Hotel in Minneapolis. The conference will focus on the theme, "Microcomputer Technology for Special Education and Rehabilitation."

Cost of the conference is \$150 if registration is received before October 1. Pre-conference workshops costs are \$75 per day.

Additional information is available from: Closing the Gap, P.O. Box 68, Henderson, Minnesota 56044. Telephone: (612) 248-3294.

AASCN Conference Scheduled Sept. 3-5

The third Annual Meeting of the American Association of Spinal Cord Injury Nurses is scheduled for September 3-5, 1986, at the Riviera Hotel in Las Vegas, Nevada.

Theme of this third meeting is "Sharing Program Innovations in Spinal Cord Injury Nursing."

PWI Transition

(Continued from page 5.)

ment of persons with disabilities. It is based on three fundamentals of marketing:

Customer Orientation: EIF/PWI recognizes meeting customer needs as an essential element to the success of its efforts to place disabled workers. Through ongoing contact with industry and rehabilitation leaders and specialists, EIF attempts to identify the personnel needs and trends of industry and to meet those needs with qualified candidates. This is accomplished through needs and market research techniques, including surveys, anecdotal reports, synthesis of job opening/specification announcements, meetings with industry personnel, review of occupational information systems, and market intelligence gathering techniques.

Product Orientation: EIF/PWI attempts to place only those disabled individuals who have qualifications and capabilities that meet the requirements of a given job. PWI staff work closely with rehabilitation service providers to identify an indi-

vidual's capabilities, and with industry personnel to delineate job specifications. Special training programs may be tailored to improve individual qualifications.

Sales Orientation: EIF/PWI utilizes marketing strategies designed to promote hiring of disabled persons. These include both separate and joint industry/rehabilitation awareness meetings; marketing brochures; targeted and general public awareness campaigns; staging of special events such as job fairs, luncheons, award programs, and telethons; public service announcements; advertising; targeted newsletters; presentations to groups of companies and community organizations; exhibits; assistance with TJTC; and most important (and most utilized), personal marketing calls to participating companies, either by phone or in person, on a routine basis.

The interventions which may be employed by PWI incorporate the following methodology:

Employment/marketing specialists match qualified disabled applicants with job openings in business and industry, make marketing calls to company personnel representatives, and forward resumes of qualified disabled applicants. If the company is interested in the applicant, an employment interview is scheduled.

When notification of a job opening is received from an employer, an employment specialist immediately searches PWI's referral files and contacts referring organizations for a qualified applicant. Support services are available to the company at all times. Assistance with adaptations to the employee's workspace or to equipment, presentations to employers related to the understanding of those with disabilities, and support services such as interpreter services for deaf or hearing impaired persons

can be provided through coordination with appropriate resources.

In addition, PWI can provide job seeking skills training to applicants and can assist in arranging on-the-job training. PWI always provides followup after each interview, and support after placement.

Specific services which can be provided by PWI as part of a transition program will include the following:

1. Assist community agencies in contacts with employers to secure their participation in the establishment of supported work/employment programs for students with the most severe disabilities.

2. Prior to graduation in the spring, PWI employment specialists can go to schools to inform students of services available to assist them in finding jobs.

3. PWI can refine job seeking skills training and resume information given to applicants. A resume guide and other resources may be prepared and provided.

4. PWI can provide labor market information to school, staff and others on a regular basis.

5. PWI can maintain frequent contact with school/adult education staff and can provide resource materials on job seeking skills and resumes.

6. PWI can assist local transition coordinating units in setting goals, policy and program emphasis by serving on advisory panels.

7. Employment specialists can make visits to speak with groups of students about PWI's services.

8. PWI employment specialists can schedule intakes either on school campuses (a familiar environment) or its own offices.

9. For those who require it, PWI staff will make the initial calls on employers to explore jobs and ask questions necessary to be sure there is a good match before the student ap-

plies (higher functioning students sometimes get jobs on their own, but often lose them because of an inappropriate match).

10. PWI can provide assistance to applicants, before placement, related to job search, resume hints, interviewing, and, after placement, on expected behavior and performance, adaptations to work environment or job tasks. PWI is an excellent source of this information, constantly updating resource information as staff confer with employment committee members representing many local corporate personnel departments. PWI can meet with parents individually or in groups as part of a PTA or other parent organization.

11. PWI can conduct workshops for parents to help them understand how its services may be accessed.

12. PWI can assist in forming industry panels to review and develop training curricula related to the job market.

Since many of the services described are little more than modifications to existing PWI services, only modest additional resources would be required to begin such a program. Estimates based on preliminary plans show that using the equivalent of two additional full-time members, as many as 50-60 persons could be placed each year.

Because of the great potential that the national network of PWI projects has for providing access to employers, a prudent approach would have them supported with the additional financial and programmatic assets necessary to become a viable resource to aid youth with disabilities make a successful transition from school to work.

Mr. Geletka is Director of Special Projects, Electronic Industries Foundation.

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Jobs by Computer: Oregon's Experience

Gary Fixsen

Having survived the initial growing pains associated with launching a specialized computer system, Oregon's Vocational Rehabilitation Division has received many inquiries regarding our experience with computerized occupational information.

Although most inquirers are just exploring possibilities, some are current users of some kind of computerized system. It has been a left-handed comfort to learn that with regard to occupational information a lot of us have remarkably similar questions, likes, difficulties, and ignorances.

Questions usually center around three areas: computer capacities; usefulness of occupational data available for analysis; and whether computerized information is cost effective and increases successful rehabilitations. Those who don't take kindly to computers will find fuel to sustain their feelings. Others, convinced that vocational rehabilitation techniques developed during the forties and fifties must change, can see what we have discovered—the nearly awesome potential that computers offer counselors.

Beginnings, and Problems

We began three years ago by soliciting sample cases from vendors or users of fourteen computerized occupational assessment systems.

Each was regarded as either "open" or "closed," depending on ease of understanding algorithms and search logic used in matching workers with jobs. An open design on-line system was selected that offered the largest choice of options defining worker abilities and job requirements; but it did so by delving deep into the 46 *Dictionary of Occupational Titles* (DOT) parameters and later an additional 29 descriptors of physical restriction.

The Job Analysis Handbook and related Department of Labor documents defining the DOT structure are hardly stimulating reading. The plan was to have a person in each of four statewide evaluation centers run the computer cases for counselors lacking the desire or perhaps time to learn the system for themselves.

Initially, we naively expected the systems (a second one was also used briefly) to effortlessly list numerous otherwise overlooked jobs which our clients could rush out and obtain; but it didn't work that way. Our counselors, never hesitant to question things that do not fit, quickly began finding weaknesses. Many suggested jobs were inappropriate because either the computers couldn't adequately define the client's functional capacities/restrictions, or the jobs were not representative of Oregon's labor market.

Cases which counselors reported going awry were called up and reviewed. Occasionally, the first task

was to determine what the counselor expected. Most were looking for ideas, or brainstorming. At the extreme, a few had expectations that, if met, would have left little of any counseling to be done. But on the whole, experienced counselors were encountering problems that by theory alone often went unnoticed. As a case was reprocessed, computer logic was tracked along the database's parametric structure. At the point where findings began falling apart, "what if" runs were juxtaposed one with another until the cause/effect was understood.

An unexpected problem was the computer's uncanny penchant for listing jobs that existed only in other states, such as in the citrus fruit, tobacco or petroleum industries. It was useless information and it wasted time. Equally frustrating was the number of generally unsaleable occupations contained in the *Dictionary of Occupational Titles*. We don't have much demand for goat herders or bicycle frame straighteners in this locale. Using Occupational Employment Statistics (OES) titles or census titles didn't work well either since they tend to cluster many similar jobs with widely varying physical demands under one job title (e.g., welders, electronics assemblers, etc.).

However, it was discovered that the system was capable of absorbing vocational information from other,

more up-to-date sources. We loaded selected information from our State Career Information System (CIS) as well as data from the Oregon Program Planning System (OPPS). This enabled either national data searches or job searches restricted to Oregon's jobs and economy. Combining local data with information in the *Dictionary of Occupational Titles* enabled more accurate defining of Oregon's labor market. For example, the DOT lists over two dozen different types of

(The user's first response is to blame "the computer".) The expanded physical descriptions on the other hand, give the option of specifying various levels of near, midrange, and distant visual acuity. Still, even these definitions must be understood before they can be used properly.

Operating procedure gradually evolved to first providing a transferable skill evaluation followed by an exploratory search across Oregon's economy for all jobs the person has

particular vocational interest or industry category, a factor we consider important. As Oregon's timber industry shrinks to meet the realities of the eighties, the resulting shakeout is forcing an increasing number of workers, including the disabled, to live a game of economic musical chairs from one occupation to another.

As logging jobs declined, a logging tractor operator's transferable skills by the DPT method were restricted to other jobs in forestry or the logging industry. The MPSMS/WF method, by contrast, crosswalked from forestry occupations, into industrial and processing occupations, where it found comparable jobs benefiting from equipment operator skills. Likewise, a displaced homemaker's embroidery skills crosswalked into electronics assembly jobs requiring similar dexterity and attention to detail. Hence, for Oregon's needs the MPSMS/WF method, with its ability to define specific skills and scan across Oregon's labor market, is proving to be the more useful method.

Initially, we naively expected the systems to effortlessly list numerous otherwise over-looked jobs which our clients could rush out and obtain.

welding occupations. Our Oregon Career Information System, on the other hand, lists all welders under one generic "WELDER" heading. One choice was insufficient, the other was overkill. Combining the data enabled breaking "welder" into a half dozen or so specific types and physical demand categories reflective of Oregon's welding occupations.

Inability to adequately describe physical limitations was a frequent cause of inadequate searches. The computer enabled more accurate definition of the physical demands of Oregon jobs by expanding physical descriptions from the normal six criteria used by DOT to twenty-nine criteria. Each has four sub-levels: not able to perform the function at all; able to perform it occasionally; able to perform it frequently; or able to perform it without limitation. For example, using the standard DOT parameters, counselors may restrict a search to jobs not requiring vision and occupations such as tractor driver still appear in the report. Unless one understands they are only eliminating detailed vision, it appears a mistake when some occupations are listed requiring minimal visual acuity.

potential to perform. The philosophy being that if there is a job in which the person has transferable skills, and if there is a demand for the job, he or she has a better chance of acquiring it than someone lacking those skills.

Early on it was found that "transferable skills" meant different things to different vocational assessment systems. Two basic concepts prevail. Both have strengths and weaknesses. One matches similar levels of job

An unexpected problem was the computer's uncanny penchant for listing jobs that existed only in other states.

complexity (DPT) within similar vocational interests (GOE) or industries. This method is inherently restricted to matching jobs within specified interests and suggests the worker has *potential* (as opposed to specific skill) to perform jobs of comparable complexity.

The second concept matches the worker's experience with specific products or services (MPSMS) and "what gets done" (Work Fields), e.g., nailing, sawing, etc. This method enables transferable skill searches without restriction to a

For the person without transferable skills, rehabilitation counseling has historically revolved on vocational interests. The computer gives us the ability to scan, by aptitude (GATB), across the job market and arrange jobs selected according to vocational interest (GOE). Selected jobs simultaneously display job outlook forecasts (OPPS), size of occupation (OPPS & CIS) and wages paid (CIS), thus making possible equal and immediate consideration of worker interests and realities of where the greatest likelihood of employment exists.

Since we know the average American worker holds seven or eight jobs in three or four unrelated fields during his or her worklife, it seems only reasonable in our present economy to fully explore a client's work potential both in terms of interest and overall marketability.

Inability to adequately describe physical limitations was a frequent cause of inadequate searches.

Unfortunately, Career Information System wage and occupation size data often differs from that issued by the Employment Division Research and Statistics Department. Both agencies have been helpful in providing rationale for the differences, nevertheless, to a harried counselor trying to stay on his/her appointment schedule and still cover the necessary counseling agenda. Such contradictions require extra time and explanation to the client, as well as undermine confidence in the information's overall reliability.

Although such discrepancies are routinely dismissed as "computer error," they are not. What counselors encounter is the computer's ability to search and compare voluminous amounts of material that normally a person would never look up individually. Despite similar titles, each source uses slightly different definitions or covers different time frames. Some counselors understandably avoid such conflict by simply sticking with whatever favorite source of vocational information they have always used.

Occupational Aptitude Profiles (OAPs) are used by some counselors. Reports automatically include OAP categories for which a client has appropriate key aptitudes. Physical considerations must be ignored, because of the widely varying job tasks

within individual OAP groupings; for example, carpenter and dressmaker share the same OAP.

Another circumstance for counselors to explain occurs when a person by OAP standards requires different key aptitudes to perform a job than by DOT scores. There are arguments

for and against both methodologies. If carpenter is selected as a vocation from OAP it ignores numeric abilities, despite numeric ability being one of the critical duties carpenters spend 80 percent of their time performing, according to Specific Aptitude Test Battery classifications (SATB). Also, OAP ignores finger dexterity, relying entirely on the manual dexterity parameter for determination of forearm, hand and finger coordination, whereas DOT requires certain levels in all

The computer gives us the ability to scan, by aptitude, across the labor market and arrange jobs selected according to vocational interest.

nine basic aptitudes (GATB). One argument says OAP is more realistic in its overall requirements for a carpenter, but DOT suggests that OAP ignores possibly important aptitudes (depending on disability) in order to fit the majority of America's gaining occupations within OAP's 66 vocational clusters.

The point to be made is that computers work well. First at issue was our need for greater knowledge of the Department of Labor and Department of Commerce data being scanned in order to ask meaningful questions and subsequently understand the computer's answers. Secondly, DOT's propensity to reflect an

earlier era of America's economy often misses addressing the real world of work. An example is electronic assemblers. OAP bases competency on one-handed/eye coordination of the "K" scale, but includes electronic assembly occupations within the category which today require exacting two-handed coordination. Many such jobs in Oregon's electronic assembly industries are so exacting that two-handed coordination is supplemented by the use of binocular magnifiers. Whether OAP or DOT data is more useful depends on the nature of the client's disability.

DOT parameters have presented their share of confusion. Most of us were unaware that the bottom 10 percent aptitude bracket of DOT has never been systematically developed; hence, disabilities causing one or more client aptitudes to fall into this bottom bracket often resulted in the computer unexplicably ruling out jobs that should appear. The system per-

mits updating job profiles or bypassing selected aptitudes.

Conversations with designers of the more elaborate systems revealed that they all rely heavily on intimate familiarity with DOT to obtain maximum performance from their systems. Often only vaguely familiar with DOT and largely "just filling in the blanks," we produced much less satisfactory results.

Counselors and the "System"

How has the system been received? Counselors are just now becoming aware of what the system actually does. This is due partly to counselors trying it in the beginning and becom-

ing discouraged with the national DOT information or the too general OES material. Severe cutbacks in agency personnel and resultant reassignment of remaining workers have made it difficult to get people trained well enough to train others

nating the need for data source familiarity.

• *Is the computer system cost effective?* I am not sure how to measure a computer's efficiency, unless by comparing it's cost with that of a \$2,000 per month counselor, taking the time

What counselors encounter is the computer's ability to search and compare voluminous amounts of material that normally a person would never look up individually.

with the new data. Field counselors have been supportive of the concept, but many back away from trying to learn the intricacies of either the computer or the databases.

It became apparent that most counselors probably never would have chosen counseling as their profession if they were of the mind set to enjoy the tedium of working with computers. This has led to setting up our microcomputers to automatically lead the host (mainframe) computer using front end programs that enter routine data, but stop at decision points and wait for further counselor input.

Some of the Important Questions

• *Have Oregon's rehabilitations increased as a result of using computer information?* Not that I am aware of, but counselors are just beginning to understand its scope of service and potential as a vocational counseling tool. Counselors most willing to tackle computerized vocational information routinely have been previous users of manual data. Therefore, it is not exactly comparable to a non-user turned user. Conversely, those counselors expressing greatest dissatisfaction with computer generated data often relate less knowledge of manual data and, not infrequently, were expecting the computer to provide packaged conclusions, elimi-

(assuming any counselor realistically has the time) to run a client through an equivalent manual process. A rough comparison suggests it costs \$11 per case less to use the computer, plus the computer system has addi-

We probably receive more favorable remarks regarding the system's ability to help counselors explore occupational possibilities than any other area.

tionally scanned across the Oregon economy for all other job possibilities meeting the worker's aptitudes and physical restrictions.

Bluntly stated, the computer is capable of performing a lot of work for each dollar spent, or not, *depending on the user*. Presently, by using our microcomputers to control the host computer (the microcomputer processes routine commands at much greater speed than can be accomplished manually), a routine case can be run for around \$7.00. This figure excludes phone costs, since we work through our regular office span lines, and I am not sure how that rate is determined, but I understand it is slightly above a local call.

• *Does computerized information help counselors develop and document plans?* If an integrated evaluation of skill and potential using Oregon's

most up-to-date occupational information is a useful counseling tool, then the computer's report should be a valued part of the case file. It incorporates the client's impaired capacities in the Transferable Skills Search, providing a measure of vocational handicap. The Exploratory Search goes on to address the question of reasonable expectation by scanning Oregon's economy for all jobs within the client's apparent abilities. We probably receive more favorable remarks regarding the system's ability to help counselors explore occupational possibilities than any other area.

That we are using and will continue to use imperfect data is acceptable *so long as the imperfections are*

known. Given the state of the art and logistics involved, it is unlikely any single source can provide all the occupational ponderables we need. Nevertheless, development of integrated systems which clearly map real world employment options relative to specific client circumstance appear essential if vocational rehabilitation is to remain a unique profession.

Whether to sit back and wait for something better or to begin maximizing existing resources seems to be the question.

Mr. Fixsen is a rehabilitation counselor with the Oregon Vocational Rehabilitation Division and has a special interest in voice controlled computer equipment.

TOPIC OF STATE

Bumper Stickers Available from RSC

Bumper stickers stating "This car doesn't park illegally in (access symbol) spaces" are available in multiples of 25 at 10 cents each through the Ohio Rehabilitation Services Commission.

Organizations should send checks or money orders for \$2.50 (25 bumper stickers), \$5.00 (50), \$7.50 (75), \$10.00 (100), etc. to Ohio Rehabilitation Services Commission, Office of Public Information, 4656 Heaton Road, Columbus, Ohio 43229.

Supported Work for Ohio Students

A pilot project to serve secondary students with handicaps in public school programs is in its seventh month of operation in Hamilton County, Ohio. The pilot was developed by the Ohio Rehabilitation Services Commission (RSC) to demonstrate whether or not a supported work model for more severely handicapped persons can work.

The students eligible for the project are identified by the Hamilton County Office of Education as those needing a job trainer to attain and hold competitive employment. Over 30 students were identified for possible services in the project's first five months. The goal is to serve 60 students and place 20 into competitive employment. Ten students have already been placed in competitive jobs in discount stores, factories, restaurants, and nursing homes.

In addition to RSC and the Ham-

ilton County Office of Education, participating agencies include the University of Cincinnati-affiliated Center for Developmental Disorders, the Great Oaks Joint Vocational School District, the Special Education Regional Resource Center, the Jewish Vocational Services Learning Capacities Project, and the Ohio Developmental Disabilities Planning Council.

The supported work approach is based on the concept of evaluating and identifying the person's strengths and placing the student on a job that utilizes those strengths while minimizing the weaknesses. No person may be excluded based on his or her handicap.

New Illinois Gas Station Law

No longer will people with disabilities in Illinois be forced to pay full service gas prices if they are physically unable to pump their own gas. Effective July 1, gas station customers with handicapped license plates or similar decal will be allowed to pay self service prices at full service pumps at stations that offer both forms of service.

Illinois Law Requires TDD's for Airports, Trains

Effective July 1, all Illinois airports and train depots which provide commercial passenger service within a 20-mile radius of cities with a population of 25,000 or more must have a telecommunication device for the deaf (TDD) for use by hearing impaired persons. This is mandated by legislation signed into law last year by

Governor Thompson which states that a TDD must be available from one hour prior to the departure of the first plane or train during the day until one hour after the last plane or train arrives.

Special Bibliography on Head Injury

Due to an increased interest and emphasis in programs for persons disabled as a result of brain and/or head injury, Ms. June Holt, Director of the Massachusetts Rehabilitation Commission Library, has developed a bibliography on this subject, containing over 200 references. Copies may be secured by writing to Ms. Holt at the Massachusetts Rehabilitation Commission, 11th Floor, Statler Office Building, 20 Park Plaza, Boston, Massachusetts 02116.

Accreditation for Arkansas Program

The National Council on Rehabilitation Education has granted full accreditation to the rehabilitation education program at the University of Arkansas.

The acknowledgement from the council is a major recognition for the program, which offers a master of education degree in rehabilitation counseling with specialization in vocational rehabilitation, independent living rehabilitation and deafness rehabilitation.

Course work is available at both the Fayetteville and Little Rock campuses and traineeships are provided to qualified students.

Telecommuting

(Continued from page 9.)

for some persons who would tend to put in more time in their at-home jobs than at their previous traditional worksite arrangement. The converse

good communication skills. This combination of talents necessary to succeed in professional employment in home-based settings will most likely be present among persons whose handicaps occurred after ad-

as an increase in income. Their need for work might stem from issues like relief from boredom or a need for self fulfillment and not from loneliness. For those persons, homebased employment opportunities must be fostered and expanded.

Persons with severe disabilities and mothers with children are consistently numbered among those who would benefit by "at-home work."

is true for nonprofessional areas where less time is projected to be spent working and consequently less money earned. In all likelihood, companies employing homebased (nonprofessional) workers will not provide benefits, will tend to pay by unit output rather than hours, and will force workers to lease their computer equipment.

Telecommuting and the Home-Based Handicapped Worker

Unquestionably, homebased microcomputer work for individuals with mobility limitations presents a new opportunity for gainful employment. In terms of numbers, the likelihood is that one-twelfth to one-tenth

vanced education and/or professional level work but probably not in great numbers among severely handicapped persons whose sheltered up-bringsings denied them the exposure that is usually gained with university and/or employment experiences.

Nonprofessional telecommuting jobs tend to require good digital skills for rapid keyboarding or good communication skills for interviewing (as in insurance claims processing or soliciting sales via the telephone). Some severely physically handicapped homebound persons can have finger movement and/or speaking limitations. However, these positions would be immediately open to many workman's compensation disabilities

Work-at-home has meant significant increases in productivity and increased income for some workers.

of the general workforce is employed at home, one-twelfth to one-tenth of the population of handicapped workers will be likewise employed in their homes. For persons with disabilities, as with the general community, telecommuting has both advantages and disadvantages. The probability of lower wages is not encouraging, but for those who have never worked, a pittance might be a bounty.

The professional level of telecommuting jobs generally requires a high intellectual capacity as well as

where mobility constraints tend not to be as limiting; and with automated systems and adaptive devices these jobs can be made accessible to even some of the most physically constrained persons.

Many handicapped persons seek to work to avoid the isolation and aloneness often imposed by handicapping conditions. Yet, for some handicapped individuals whose mobility limitations are too severe for travel, homebased employment would mean an increase in social contact, as well

Mr. Vagnoni is Director, Physically Handicapped Training Center, University of Pittsburgh.

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Evaluation of Projects With Industry: Findings and Recommendations

Becky Jon Hayward
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The 1984 amendments to the Rehabilitation Act required the Commissioner of the Rehabilitation Services Administration (RSA) to conduct a comprehensive evaluation of Projects With Industry (PWI), an RSA-funded discretionary program that supports the development of partnerships between the business community and rehabilitation service providers to assist persons with disabilities in obtaining competitive jobs. The 18-month evaluation of PWI, conducted by Policy Studies Associates, was completed in February 1986. This paper provides an overview of the study's activities, discussion of the study's findings and conclusions, and comments on possible future directions of the PWI program.

Overview of the PWI Evaluation Activities

The national evaluation of the PWI program collected information on seven topics identified in Section 162(b) of the 1984 Rehabilitation Amendments:

“(A) the numbers and types of handicapped individuals assisted,

“(B) the types of assistance provided,

“(C) the sources of funding,

“(D) the percentage of resources committed to each type of assistance provided,

“(E) the extent to which the employment status and earning power of handicapped individuals changed following assistance,

“(F) the extent of capacity building activities, including collaboration with other organizations, agencies, and institutions, and

“(G) a comparison, when appropriate, of activities in prior years with activities in the most recent year.”

As specified in the 1984 Amendments, evaluation standards were developed for the PWI program that corresponded closely to these topics. Following their approval by the National Council on the Handicapped in January 1985, the standards were used to guide development of a data collection design and instruments that would permit us to obtain the information of interest to Congress.

Data collection activities implemented to obtain needed information on the seven topics included: (1) a mail survey of the 98 PWI projects; (2) interviews with a sample of employers who had hired PWI participants; (3) interviews with a sample

of PWI project directors; (4) background and service information on a sample of PWI participants; and (5) a mail survey of a sample of current and former PWI participants. Data collection occurred during summer and early fall of 1985. PWI recipients and other categories of respondents exhibited a high level of cooperation with the data collection, as the study's response rates indicate:

Category of Respondent	Response Rate
PWI Projects	98%
Employers of PWI Participants	91%
PWI Project Directors	100%
PWI Participant Information	97%
PWI Participant Survey	43%

Following approval by the Department of Education, the final evaluation report was submitted to Congress in mid-February 1986.

Study Findings

The evaluation collected information on PWI activities in the 1983-84 project year. During that year, 85 organizations provided PWI services under 98 grants totaling approximately \$13 million, for an average award of \$132,000. Organizations providing services included rehabili-

tation facilities and associations, social service agencies, educational institutions, corporations, labor unions, and trade associations. There were 263 project sites across the nation, 212 of which received RSA funds. While these sites were widely distributed nationally, some areas, particularly the Southeast, had few PWI services available.

The study's findings, organized according to the categories of information requested by Congress, include the following.

“(A) the numbers and types of handicapped individuals assisted”

During project year 1983-84, over 16,000 persons received services under the PWI program. Analysis of the characteristics of these individuals indicates that 61 percent of PWI participants are male and 78 percent are white. The majority are in their early thirties. Participants are likely to be severely disabled and unlikely to have had any education beyond high school. The state vocational rehabilitation system provided most participants with services and referred them to PWI projects. Participants are very likely to have been unemployed at the time they entered a PWI project, usually for at least six months. They are unlikely to be receiving other disability-related benefits. The mentally ill account for roughly one-fourth of all participants, while another 18 percent are orthopedically impaired and 15 percent are mentally retarded.

“(B) the types of assistance provided”

Virtually all projects provide placement and follow-up services to participants, and most provide training designed to help participants find and keep jobs. Fewer projects provide occupational skill training or supportive services such as counseling, assis-

tive devices, and remedial or other education. The array of services offered varies somewhat by the type of organization operating the project. Newer projects tend to offer less occupational training and more training for job seeking and job retention than the older projects.

Services most frequently offered to employers include recruitment and placement services, assistance with Targeted Jobs Tax Credits, and assistance with problems that arise after a participant has been hired. Although many employers do not report receiving specific services from PWI projects, employers who have

Virtually all projects provide placement and follow-up services to participants, and most provide training designed to help participants find and keep jobs.

received such services rate them highly. Among the other services projects report they provide are technical assistance and information dissemination to spread the word about the PWI strategy for helping persons with disabilities obtain competitive jobs.

“(C) the sources of funding” and “(D) the percentage of resources committed to each type of assistance provided”

PWI projects overall obtain about three-fourths of their financial support through their federal PWI grants, lesser amounts from nonfederal sources, and very little from other federal sources. Three-fourths of project funds are used to provide services directly to PWI participants, especially placement and training services. Organizational type and the recency of project initiation are related to the allocation of resources, but the variation is not dramatic.

Projects' expenditures of PWI grant funds and their placement success are reflected in an average cost per placement of \$1,452. When PWI projects that were first funded in 1983 (shortly before data collection) are excluded, the average cost per placement is \$1,128.

“(E) the extent to which the employment status and earning power of handicapped individuals changed following assistance”

Approximately half of the persons participating in PWI projects in 1983-84 (at least 8,400) obtained competitive jobs, having been unem-

ployed at program entry, probably for at least six months. They are likely to have received services through the state vocational rehabilitation system and to have been referred to PWI through that system. They are not likely to have received other benefits based on disability.

The jobs obtained by PWI participants are likely to be in a service, clerical, or sales occupation. Earnings following participation in PWI are about \$171 a week, a net increase of nearly \$150 a week over average weekly earnings at entry.

Employers who have hired persons through PWI tend to view the project and its staff very positively. Virtually all employers interviewed indicated their willingness to hire additional PWI participants. They recommend more outreach to the community and employers in order to increase awareness of the resources offered by PWI. Many recommend some expansion of the program.

“(F) the extent of capacity building activities, including collaboration with other organizations, agencies, and institutions”

PWI grantees maintain relationships with many outside groups able to help them achieve their goals. Membership on advisory committees is an important means used to maintain and build new relationships, especially with organizations likely to hire PWI participants. Nearly 5,000

program.

Project Management

PWI projects generally report the missions of their projects in terms of “placing and/or training handicapped individuals” or “enhancing employment opportunities” through changes in the business community or both. To monitor their progress, projects often compile management reports on their activities and partici-

entail significant new recordkeeping burdens.

Federal Management

In the course of this study, survey and interview respondents were invited to offer recommendations for improving the PWI program. In general, they expressed a high level of commitment to its overall goals and operations. At the same time, they asked for more assistance from federal program managers, especially in clarifying key definitions, developing mechanisms for ensuring compliance with program requirements, and establishing minimal project assessment and reporting procedures. In this regard, PWI project directors saw the new evaluation standards and the information gathered for this evaluation as a useful baseline for RSA’s ongoing monitoring of the program and for grantees’ self-evaluation activities.

Projects also expressed the need for technical assistance from RSA central or regional offices to help them improve their operations, develop more effective partnerships with the private

Projects’ expenditures of PWI grant funds and their placement success are reflected in an average cost per placement of \$1,452.

persons served on PWI advisory committees in 1983-84. In addition, PWI grantees use many other informal and formal means of coordinating their activities with employers, state vocational rehabilitation agencies, rehabilitation facilities, and other organizations. These activities are designed to improve projects’ capacity to recruit, train, place, and provide followup help to persons with disabilities. In addition, these activities probably improve community understanding and interest in assisting disabled persons to obtain competitive jobs.

“(G) a comparison, when appropriate, of activities in prior years with activities in the most recent year”

Because program data were not systematically collected before this evaluation, it was not possible to make comparisons with earlier PWI activities. In order for such comparisons to be made in the future, it will be necessary for certain management and reporting procedures to be in place. This study collected information on the management and reporting practices of projects as well as on the overall operations of the PWI

program. Somewhat less frequently, projects (especially the larger ones) monitor their activities through formal evaluation systems designed to track progress against objectives. Older projects often hold regular staff meetings to review their progress. The measure of success that is most important to project directors is the number of placements.

When asked to assess the utility of the evaluation standards developed

Approximately half of the persons participating in PWI projects in 1983-84 obtained competitive jobs.

for the PWI program, most project directors interviewed said that the information required by the standards is similar to the information they already collect. Most also said that the information required in the standards would be useful in self-monitoring, whether they currently collect similar information or not.

Some project directors expressed interest in federal adoption of a standardized monitoring and reporting system for the PWI program. They cautioned, however, that it should not

sector, and generate more productive collaboration among projects. Respondents recommend that RSA publicize the PWI program and its goals, expand PWI projects to all parts of the country, support the development of national business-rehabilitation partnerships, and encourage the formation of regional and national PWI networks.

Program Accomplishments

These data support the evaluation’s chief conclusion—that PWI projects

are experiencing success in their efforts to assist persons with disabilities in obtaining competitive jobs. The persons whom projects serve and place in jobs were found to have

Employers who have hired persons through PWI tend to view the project and its staff very positively.

serious barriers to success in the competitive labor market. About two-thirds are severely disabled, have experienced long-term unemployment and associated low incomes, and are not highly educated.

The overall cost per placement of \$1,452—and the lower cost per placement of \$1,128 achieved by mature PWI projects—suggest that the projects are accomplishing their goal of competitive placements in an efficient manner. These funds are used to provide participants with a set of core services that emphasize employability skills, i.e., training in how to mount an effective job search and in how to retain a job through effective performance in the work place. Projects also work with employers to encourage the business sector to look toward disabled persons as competent workers.

The effectiveness of these PWI strategies is indicated by employers' high level of satisfaction with the PWI participants they hire. Additionally, the fact that nearly 5,000 businesspersons and rehabilitation professionals donate time to PWI by serving on project advisory committees suggests substantial commitment to the PWI strategy of forging partnerships between business and rehabilitation to improve the employment prospects of disabled persons. Finally, the study findings indicate a relatively high level of coordination with the VR system.

Program Improvements

The national PWI evaluation identified some areas in which improvements might increase the program's

effectiveness. The first of these has to do with availability of PWI services around the country. Although program services are provided in many locations, their availability is extremely limited in some states and regions, particularly in the Southeast, Southwest, and some of the Western states. Given the concentration of PWI projects in some cities and other regions of the country, these distribution patterns may limit the over-

Virtually all employers interviewed indicated their willingness to hire additional PWI participants.

all capacity of the program to reach disabled persons needing assistance in obtaining competitive employment.

Second, the program currently has no process in place for assessing the performance of individual projects or the program as a whole. Moreover, there are areas of ambiguity concerning program definitions, allowable activities and the like. These problems complicate attempts to describe and assess program activities and outcomes, thus limiting the extent to which program accountability can be assured.

Possible Future Directions of the PWI Program

In recent months, the findings of the PWI evaluation have been used in deliberations about reauthorization

of the Rehabilitation Act. Among the issues mentioned in Senate and House testimony or in House Rule 4021 are conversion of PWI from a demonstration grant to a service program, increases in the program's authorization, and changes in the program's administration.

Conversion of PWI to a Service Program

Testifying in March 1986 before the Senate Subcommittee on the Handicapped on behalf of the National Association of Rehabilitation Facilities (NARF), Theodore Fabyan, President of Vocational Guidance Services in Cleveland, Ohio, recommended conversion of PWI to a service program. Referring to the evaluation's discussion of concerns among grantees about the status of PWI as a service or demonstration

program, he stated:

"I also strongly encourage you to convert the Projects With Industry Program from its status as a demonstration project to a service program. As a service program, each year thousands of disabled Americans will be assured the opportunity of participating in Projects With Industry, which have been proven both efficient and cost effective in helping handicapped persons take their places in the competitive marketplace. . . . Assured funding based upon adherence with federally-established standards of performance, will permit agencies such as Vocational Guidance Services to offer an expanding variety of work experience, training and placement programs to an ever increasing number of disabled persons at a cost

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An Individual Flexible Employment Model: A Bridge to Life

Sidney Blanchard

For Richard Allen, landing his job in the Elizabeth, New Jersey, office was a personal triumph. His desk is noticeably several inches higher than those of his coworkers. Next to his appointment book and desk calendar his desk has specially crafted devices to contain drinking water and enable him to use the telephone. Richard Allen is an employment counselor with the New Jersey Division of Vocational Rehabilitation. He also is quadriplegic.

The 29-year-old college graduate is one of 60 severely disabled adults to find competitive jobs through the Casemanagement Employment Project (CEP), a federally funded pilot program sponsored by the Association for Advancement of the Mentally Handicapped (AAMH).

A statewide, nonprofit agency dedicated to helping handicapped adults maintain their independence, AAMH launched the program in October 1983 with a three-year \$110,000 grant from the U.S. Department of Education. To those of us at AAMH, earning a paycheck and instilling self-confidence was a key factor in helping disabled adults adapt to community life.

Unlike the more traditional social service approach, we at AAMH believe that the *community* must be

organized to enable its disabled members to live in that community. Since opening our doors in 1977, we have matched the needs of our individual "members" with vital services in the areas of housing, employment, money management, cooking and using transportation, crisis assistance, medical care, parental support, and social and recreational activities. AAMH upholds a basic social contract as the cornerstone of our philosophy: members in a society are granted benefits in exchange for performing certain functions, most notably being a responsible, tax-paying citizen. In many cases, that translates to a three-letter word—JOB.

In terms of statistics, our federally funded pilot project has been enormously successful; as of April 1986, we had already exceeded the project's goals of 60 successful job placements, with seven months left before the project's completion in October. (A "successful" placement is defined by the New Jersey Division of Vocational Rehabilitation as one which lasts at least two months.) Ninety-five job candidates were placed—at least 15 percent needed more than one placement to be considered "successful."

Nearly 80 percent of our new workers are mentally handicapped;

others have mobility, visual or hearing impairments. Many have multiple handicaps. For several, like 67 year-old Ted Martin, it was the first time in their lives they had brought home a paycheck. Confined to a state institution for 47 years, Martin found a new home with two roommates in his own apartment. To punch in on time, Martin rises at 4 a.m. to catch two public buses that take him to a resin manufacturing plant 10 miles away.

Like Martin, most of the project's participants—nearly 60 percent—found work in factories. Another 13 percent are food service workers in such establishments as the Marriott Hotel or an AT&T employee cafeteria; 8 percent are professionals, including an accountant and a rehabilitation counselor.

A breakdown of wages shows that 57 percent earn less than \$4 per hour, 25 percent earn between \$4-5 per hour, 11 percent are paid between \$5-6 per hour, and 7 percent earn over \$6 per hour. A profile according to gender and race reveals that the majority—57 percent—are male, while 43 percent are female, 46 percent are black, 44 percent are white, and 6 percent are Hispanic.

What is the key to the project's success? In a nutshell, it's treating

each job applicant as an individual, funnelling support where support is needed. From providing a sign language communicator for a hotel kitchen worker to buying a set of tools for a budding mechanic, our strategy is to provide a "menu" of supportive services tailored to individual need.

For Richard Allen, that meant a CEP staff member travelling to his office daily to empty his urinary bag. Eventually, AAMH staff assisted in providing a larger device for the office worker, enabling the young man's attendant to take care of this need. Allen's mechanical accommodations were performed by the CEP project director, who is handy with a toolbox.

In another instance, CEP secured \$500 in state funds to purchase a set of tools for a 19-year-old mentally disabled man with psychiatric problems. Although a local shop had no job openings, through CEP staff intervention and persuasiveness he was hired as an apprentice in an auto body shop.

In many instances, making the employer aware of the client's disability was the key to job procurement. A 23-year-old deaf man had performed poorly in a sheltered workshop, which clustered people with his handicap in one area. His supervisor said he "talked too much." In other words, his inappropriate talking using sign language resulted in poor performance on a manual job.

After many counseling sessions with CEP staff, he was placed as a kitchen utility helper in a Marriott Hotel. We provided sign language communicators for the first few months, as well as on-site training. His disability no longer prevents the young man from being a good employee.

We have found that our assistance

can be as simple as lending money to help a client fix a car to providing complicated legal assistance to a woman on parole, who had been convicted and sentenced for murder. While incarcerated, she was trained as a secretary. After being unemployed for over one year, CEP secured a job for her at a company whose application did not have the frequently found inquiry—"Have you ever been convicted of a major crime?"

The CEP staff supported this young woman through complex legal proceedings while she was on probation,

For several candidates, it was the first time in their lives they had brought home a paycheck.

thereby enabling her to keep her job.

Our "support services" have been as diverse as our clients, all tailored to help the individual adjust to the work environment. Perhaps the most striking example of CEP staff support occurred when the project director and program counselor doubled as foreman in a packaging plant where CEP applicants were seeking employment. For three weeks, CEP staff supervised an assembly line at the afternoon shift, developing a set of jobs for the clients and helping to ease their anxieties at the worksite. The company explained that they were willing to hire the prospective employees, but lacked the supervisory personnel necessary to train them. Thus, AAMH filled a personnel gap at the plant, while providing on-site training for its clients. Once the initial training was completed, the plant's own supervisors became accustomed to their new employees. We were able to iron out trouble spots with supervisors who had no experience working with disabled

people. Eventually, nine AAMH clients were hired as permanent employees. This "supportive work model" has been documented as among the most effective in the adjustment of disabled workers, according to extensive research by Paul Wehman.¹

What spurred the intense AAMH effort to help the disabled enter the workplace? While subscribing to a community support model, AAMH recognizes that a competitive job is only one component of an individual's successful adaptation to community life. Among the other factors are adequate housing and interpersonal

relationships. Andrew Halpern² is among the pioneers in advocating this "community support" model. Three years ago, we had established an impressive track record in finding independent supervised housing for disabled adults, as well as placing more than one hundred of our members in sheltered workshops or competitive employment.

As a community agency, we were alarmed that movement from sheltered workshops to competitive employment in our area was steadily decreasing: from 1981-82, this placement into competitive jobs from seven sheltered workshops plummeted by 25 percent. In fact, two of these workshops reported only a five percent placement rate into the competitive job market. Nationally, it is significant to note that 50 to 80 percent of all working age disabled adults are without jobs.³

At the project's outset, we hired a project coordinator, a project group worker, a case manager, and a caseworker. The goal was not only to

In many instances, making the employer aware of the client's disability was a key to job procurement.

provide employment for 20 disabled adults each year of the project, but to offer case management services to help ensure job maintenance. Referrals were received from local sheltered workshops and the New Jersey Division of Vocational Rehabilitation (each participant had to be certified by the state DVR or the Commission for the Blind).

Pre-vocational classes addressed such skills as resume writing, filling out job applications and role playing interviews, some of which were videotaped to enable discussion. A human relations course was begun to help participants talk with peers, coworkers and employers. For those who needed a more concrete means of expressing themselves, a creative arts course was introduced.

An Individual Habilitation Plan (IHP) was drafted for each prospective employee, matching AAMH and community services with his or her particular needs. Training in pre-placement services included these areas:

Financial: Help was offered in making personal loans, budgeting, check cashing, and using banks.

Housing: Help was provided in locating housing and roommates, making rental arrangements and dealing with landlords.

Transportation: Participants learned how to contact para-transit systems and buses adapted for the physically handicapped.

Employment-Related Services: Help was provided in skills assessment, skills training, organization of a job club, and in obtaining job clothing.

ing on-the-job training funds or Targeted Job Tax Credits.

Medical Services: This included nutrition counseling, medication monitoring and assistance in obtaining medical insurance.

In addition, arrangements were made for therapy or counseling; special appliances or prostheses; and preparing for the General Educational Development (GED) exams. Referrals were made to support groups of people with similar disabling conditions. In the personal growth area, services were offered in counseling for parents and relatives.

Not all of our services are agency-generated. In fact, one of the most powerful forms of support comes from the job applicants themselves, who organized a job advocacy group. Holding bi-monthly meetings, participants discuss on-the-job problems, often inviting speakers to describe specific programs available in the community health project.

An explanation of services as detailed above can sound very clinical and tidy. What it means in human terms is another story. Often, a CEP caseworker would meet a job applicant at 5 a.m. to "travel train" the newly-employed to the worksite; or, a call from a disgruntled factory supervisor at 2 a.m. might bring an AAMH staff person to the job site to smooth out difficulties between the employer and the frightened novice employee. That's another key ingredient of CEP's success: motivation and dedication of staff. At least 10 percent of our clients have no families or immediate relatives; often, we function as surrogate parents, providing support

when needed.

As noted by many, social adjustments to work are as important or even more important than skill adjustments to work.

After job placement is made, we continue to make on-site visits to the newly-employed worker, offering support where needed. Gradually, the frequency of these visits is reduced as the clients become more comfortable with the work environment. We see these follow-up visits as critical to the program's success; they often spell the difference between keeping or losing a job.

"When I accepted the job as a counselor, I had many doubts about my ability to work," recalls Richard Allen, a quadriplegic who was hired as a job development counselor with the state DVR. "The CEP really helped me work out my problems."

After celebrating his first anniversary of employment, Allen was recently praised as an "outstanding" employee by his supervisor. Citing the importance of CEP's post employment visits, Allen says he has applied the AAMH support model to develop intervention strategies for his own clients.

Typically, the CEP case management services are in effect for one year. At this point, clients are encouraged to enroll in our community support service program, becoming official AAMH "members." Since many of the members are not mentally handicapped, we have developed social and recreational activities to meet their needs, from dining at a Chinese restaurant to attending plays.

While CEP's greatest tribute lies in the dignity and self-esteem of newcomers to a world that had been closed to them, society is also a beneficiary. In addition to bringing new skills and talents to the workplace, the program also saves taxpayers ap-

proximately \$133,000 each program year, including \$84,000 in Supplemental Security Income payments and \$10,000 in public assistance. Workers employed through the project generate about \$39,000 in annual federal tax revenues.

Beyond its own boundaries, what impact has CEP had on similar programming with the disabled? Through varied and innovative means of dissemination, CEP has significantly influenced funding and served as a stimulant for a statewide program recently launched by the New Jersey Division of Developmental Disabilities (DDD).

To help continue the CEP, the state DDD has granted \$28,000 to cover program expenses from September through December 1986, three months after the expiration of federal funds. The state has also indicated a willingness to continue funding on a modified level in 1987. On a local level, the Union County Board of Chosen Freeholders has pledged \$20,600 to fund employment and case management services for 20 disabled county residents.

Spurred by the demonstrated need to offer similar services to youth, a social service block grant, coupled with funds from two local foundations, will initiate a pilot jobs training program for special education students.

It is also noteworthy that CEP has generated its own funds; from September 1983 to March 1986, the project attracted \$51,000 in fees for service for the agency.

In addition to generating funds,

CEP has also sparked enough interest and enthusiasm to generate other job placement models. Last year, the New Jersey Division of Youth and Family Services awarded AAMH a \$170,000 grant to launch a life skills project for 60 abused or neglected mentally handicapped adolescents and young adults. The program will provide day treatment services, including counseling, GED preparation, recreation, and vocational skills training.

Outside Union County, there are other "spin-offs". In nearby Somerset County, our sister AAMH has begun a computerized job and referral service financed through a grant from the state DVR.

Our most ambitious "clone" was the initiation of a statewide program to find job placements for 150 disabled adults, funded through an \$800,000 grant from the state DDD to two state organizations for the handicapped.

But perhaps our most enthusiastic endorsement comes from CEP participants themselves. As one newly-placed worker put it, "It's very satisfying to bring home a paycheck and have people appreciate the contribution I'm able to make. It sure does a lot for my self-image."

With the voluntary services of many talented people, we recently produced a videotape describing our community support programs. The video is entitled "am i really that different?" The satisfaction of our members, as expressed above, answers that question with a resounding "NO!"

Mr. Blanchard is Executive Director, Association for Advancement of the Mentally Handicapped, Elizabeth, New Jersey.

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Fine Arts Contest Announced

Kaleidoscope, *The International Magazine of Literature, Fine Arts and Disability*, has announced the Fourth International Poetry, Fiction, and Art Awards competition.

The objective of this contest is to bring recognition to outstanding artists and writers on the subject of disability. The competition is open to disabled and nondisabled, professional and nonprofessional writers and artists.

There are three categories: poetry, fiction and visual art. Contest deadline is September 15, 1986. All submissions should be previously unpublished or unexhibited works and must be in English.

For further information, write to: Gail Willmott, Contest Coordinator, *Kaleidoscope*, 326 Locust Street, Akron, Ohio 44302.

For three weeks, CEP staff supervised an assembly line developing a set of jobs for the clients and helping to ease their anxieties at the worksite.

Language Used or Used Language?

Ron Bourgea

Superabundance. Sue these words for nonsupport.

- “*useful* and *realistic conclusions*.” *Webster’s* defines *useful* as “... serviceable. . . often, having practical utility.” That seems “real” enough!

- “was hosted jointly by. . .” “Hosted” has enough “joint” to walk on its own.

- In the name of Sweet Mercy, please drop the words “existing” and “ongoing” from your vocabulary—you’ll be a better writer for it, and we readers will be existingly and ongoingly grateful!

- “... to *accurately* comprehend.” One might miscomprehend or half-comprehend, or not comprehend, or any of a number of other negative qualifiers, but once comprehended, the process is accurate, even when the material comprehended is inaccurate.

- “to the *free* and *open* exchange of ideas.” *Webster’s* tells us that “open” is “free to be entered, used, competed in, shared, visited, etc. by all.”

- ... the *presenting* obstacle. I am more and more convinced that social writers have a phobia about nouns that says: “A noun must not stand alone. It must be explained with an adjective.” I am not sure what this author wants to qualify. I am sure, however, that when an obstacle is

met, it is present.

From the same paper: ... active collaborators. When one collaborates, there is activity aplenty, either physically, mentally, or spiritually.

And, again, the tandem, non-functional phrase “the *expectation* and *promise* of employment.” *Webster’s* tells us that “promise” is the “basis for expectation.” In the same genre, “the concepts of *mainstreaming* and *integration*.” The terms are equal and, thus, repetative. Conceded, “mainstreaming” is a specific type of integration, *i.e.*, combining hearing and hearing impaired students within the same classroom; the orthopedically impaired with students who have use of their arms and legs; etc. But the fallacy of the statement can be graphically shown by the statement, “At dinner, I had peas and vegetables and steak and meat, followed by pudding and desert.” Or, “We entered the church and building, then went home to our structure which is right next to the Jones’ house and abode.”

Elongationitisism. The simple form is preferred.

Over the past several years—for several years; throughout the entire period of—throughout; in spite of the fact that—even though, although; continues all day Saturday and

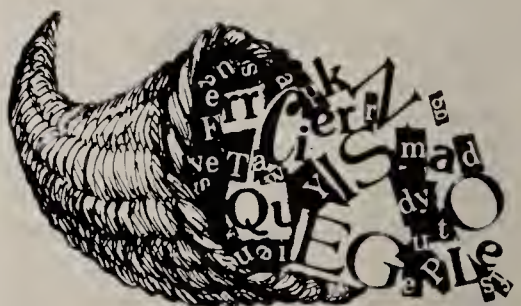
Sunday—continues through Sunday; in the area of—in (as, instruction in counseling); use as a beneficial tool—use beneficially; at the present time—presently, now; in comparison to—compared to; and, participants were in agreement that—participants agreed that. . . .

Careful Writing. Simple writing does not necessarily mean clear writing.

Where Form outdid Grace:

a. “The nurses were so nice. Because of the noise from drilling Miss Mathews moved me to an attractive quiet one which certainly made a big difference.” From a patient’s letter in *Pulse*, New England Deaconess Hospital.

b. “To state the basic theme of the opus in a single inclusive sentence, then: doubts and trepidations about our capacities to predict and cope with important impending events are reflected in the physio-subjective effects we call ‘anxiety,’ and actuate various pseudo-adaptations such as symbolic evasions (phobias), assertive rituals (compulsions), recourse to nepenthics (alcohol or other



drugs), regressive dependencies (depressions), reactive aggressions (paranoia), dysaffective dereisms (schizophrenia) and other complex attempts at mixed mastery and denial which, depending on the extent and duration of their deviation from current cultural norms, are then labeled ‘idiosyncratic,’ ‘neurotic,’ ‘sociopathic,’ and ‘psychotic.’” *Psy-*

chosomatics. (Now, that is a single inclusive sentence if I ever read one!)

c. "Piety, or the frequency of attendance at religious services, was highly associated with fatal arteriosclerotic heart disease, the risk for persons attending church infrequently being nearly twice that for persons who attended once a week or more often." *Medical Tribune* (quoting from a paper that had been presented at a meeting attended by one of its writers.).



Pastiche.

• "The medical community has ignored the impact of the disability for the most part. Sufferers are seen often as emotionally unstable and neurotic." The phrase "for the most part" here placed is weak, dangling, and removed from the verb which it modifies. It should be given as "for the most part has ignored," "has for the most part ignored," or "has ignored for the most part." In the second case, the euphony of the sentence is improved immeasurably by splitting the verb with "are often seen." (cf, Bernstein, Harbrace, and Curme).

• "... one of the goals ... is reeducation of the family system." Systems can be many things: They can be created and destroyed; they can be efficient and inefficient; they can be programmed, regulated, expanded, contracted. But they can't be educated. That is one thing in which *homo sapiens*, and even animals, have over any system, even the systems within their own bodies.

Telecommuting

(Continued from page 21.)

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For a more complete bibliography on telecommuting, send \$2.00 to HandiSoft, 4025 Chestnut St., 3rd Floor, Philadelphia, PA 19104-3054.

LD Profile

(Continued from page 13.)

statistical anomaly reveals larger proportions of the non-LD group being rehabilitated in less than seven months and more than 24 months.

The middle range of months—seven to twenty-four—accounted for 69.8 percent of the rehabilitated LD population and only 53.0 percent of the non-LD group. On the average, rehabilitated LD clients spent only 18.2 months in vocational rehabilitation compared to 22.5 months for the non-LD group.

The highest rehabilitation rates for LD clients were for those in the rehabilitation process for one to two years—a success rate of about 70 percent. For the non-LD group, the highest rehabilitation rates of roughly 75 percent were for those staying in VR four to six months.

Receipt of Restoration Services

Only eight percent of the LD persons rehabilitated in FY 1983 received restoration services. These are medical services for physical and mental conditions. A much larger proportion—39.0 percent—of the non-LD clients received such services during the vocational rehabilitation process. This disparity may have been expected, given the large age differential between the two groupings of clients. The receipt of restoration services was not associated with a change of any consequence in the rehabilitation rates for LD clients—67.3 percent if medical services had not been provided and 66.4 percent if there had been no services. There was a considerable difference, however, in the rehabilitation rates among the non-LD clientele depending upon the delivery of restoration services—73.1 percent with such services versus only 56.0 percent in the absence of services.

Receipt of Training Services

LD clients rehabilitated in FY 1983 were likelier than their non-LD counterparts to have received some type of training while undergoing rehabilitation—65.7 percent compared to 52.5 percent for the non-LD grouping. This finding is in accord with the long-observed pattern of younger persons being likelier to receive training than older persons.

Larger proportions of LD clients received vocational schooling, on-the-job training and personal and vocational adjustment training.

Larger proportions of LD clients received vocational schooling, on-the-job training and personal and vocational adjustment training. Interestingly, however, the non-LD group was likelier than the LD population to have been sent to college as part of the rehabilitation process. The reason for this finding is not immediately obvious since a much higher proportion of the LD clients was of college age. It is possible that the nature of the various learning disabilities militates against a college education for the vast majority of persons so affected.

For both LD and non-LD clients, the receipt of some form of training led to higher rehabilitation rates than if no training had been provided. Importantly, however, training had a more positive impact on the LD clientele. The rehabilitation rates for both groups were similar in the absence of any training—58.7 percent for the LD population and 57.9 percent for the non-LD grouping. When training was received, the rehabilitation rate for the LD group rose to 71.4 percent and the non-LD clients to 65.4 percent. The type of training producing the highest rehabilitation rates for both types of clients was on-the-job

training, 82.2 percent for the LD population and 79.4 percent for the non-LD group.

Severity of Disability

Not unexpectedly, learning disabled persons were less likely to be classified as being severely disabled—39.5 percent compared to 59.0 percent of the non-LD clients. This discrepancy is explained by the youthfulness of the LD grouping and

by the absence of a definition of severe disability in the reporting system geared specifically to learning disabled persons. Those classified as severely disabled in both groups were less likely to be rehabilitated than persons who were not severely disabled. Among the learning disabled, the rehabilitation rates were 62.8 percent for the severely disabled and 69.1 percent for the non-severely disabled. Among the non-learning disabled, the rehabilitation rates were 59.2 percent for the severely disabled and 65.5 percent for the non-severely disabled.

Cost of Case Services

State rehabilitation agencies spent considerably less money on their LD clientele rehabilitated in FY 1983 than on non-LD persons. The mean cost of purchasing services for the LD grouping was \$876.50 compared to \$1,484.90 for the rehabilitated non-LD clients, a difference of nearly 70 percent more for the latter group. A similar disparity was observed among persons who could not be rehabilitated. The LD clients not successfully rehabilitated averaged \$572.30 in case service costs, while their non-LD counterparts averaged \$948.00, or

about 66 percent more. The LD population seldom required medical services, while the training services they received in greater numbers than the non-LD group were generally less expensive services, such as vocational schooling, on-the-job training and personal and vocational adjustment training. They were much less likely to receive the more expensive college training than were the non-LD clients.

Mr. Mars is senior statistician for RSA.

PWI Evaluation

(Continued from page 25.)

which will decrease proportionately with the increase in placement."

While H.R. 4021 does not recommend a conversion to service status for PWI, the bill does include language that would extend PWI grant periods from three to five years, a change that would maintain the competitive nature of the program while addressing the NARF concern that the future success of PWI depends to some extent on assured, performance-based funding.

Changes in Program Authorization Levels

Citing the evaluation report, the NARF testimony also recommends a substantial increase in PWI's authorization, from the current \$15.2 million to \$50 million in Fiscal Year 1987, increasing to \$90 million in Fiscal Year 1991. Expansion of the program's funding would, according to other testimony heard by the subcommittee, permit implementation of PWI strategies throughout the rehabilitation community (Daniel D. Sullivan, Executive Director, Delaware Valley Project With Industry,

March 25, 1986). H.R. 4021 also contains changes in PWI authorization levels: \$18 million for fiscal year 1987, increasing to \$22 million in fiscal year 1991.

Program Administration

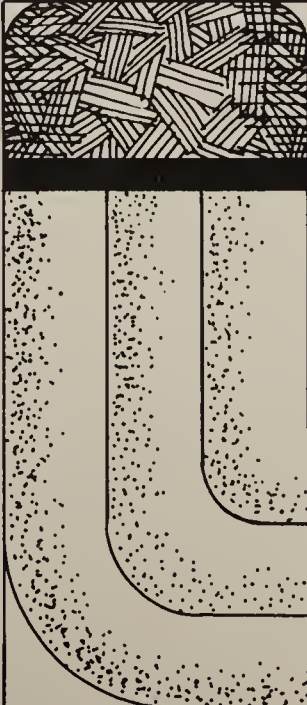
Both Senate testimony and the House bill call for changes in program administration. Each articulates a plan for annual grantee reporting and periodic evaluation of the program, with continued funding contingent on adequate performance of the projects in meeting their competitive placement goals. The NARF testimony recommends performance-based funding of the service program, with a report from the RSA Commissioner to Congress each year at the time of budget submission and a comprehensive program evaluation by February 1989. The House bill

calls for annual RSA review of evaluative information submitted by grantees and decisions made on project continuation based on this review.

Summary

This review indicates that the findings of the recently completed national evaluation of PWI have been accepted by groups able to influence the development of the program and are being used in deliberations concerning possible new program directions.

Dr. Hayward served as director of the national evaluation of Projects With Industry. Ms. Reisner was a key staff person for the study in charge of developing PWI evaluation standards. Ms. Choisser, research analyst with RSA, was the technical monitor for the evaluation.



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Oct-Nov-Dec 1986

AMERICAN REHABILITATION

Networking
TBI Rehabilitation
Homebased Employment
Deafness and Mental Health

A Letter from the Commissioner

Dear Colleague:

On June 23 the President nominated me to be the Commissioner of the Rehabilitation Services Administration. On August 9 the Senate confirmed that nomination, and on September 3 I took the oath of office.

I am honored to receive this appointment and awed by the challenge which it represents. As Commissioner of RSA I will do my very best to merit the confidence of the President by representing Americans with disabilities well. I look forward to serving under the leadership of Secretary of Education William Bennett and Assistant Secretary Madeleine Will, and to working in true partnership with disabled people, their families, their advocates and those dedicated individuals in every state and community who provide rehabilitation services. I will give particular attention to contributing whatever I can to the establishment of unified, positive advocacy and cooperative working relationships among all segments of the disabled and service provider communities. I will attempt to promote participatory decision making. I will work hard to influence public understanding of the rights and potential of people with all types of disabilities, and support for quality rehabilitation, educational and independent living services. And I will encourage the creation of a comprehensive long-range national plan designed to achieve an efficient, affordable continuum of public and private independence and productivity oriented services which will give all 21st century Americans a real opportunity to fulfill their productive and life quality potential.

In order to begin to learn my new responsibilities, and to strengthen the federal-state-community partnerships which are an essential ingredient of any successful national rehabilitation effort, I have recently

held meetings in each of the fifty states to solicit guidance from rehabilitation and independent living professionals. I learned much of value, and I am deeply moved by the dedication and the quality of the individuals I met.

I firmly believe that our system of public and private rehabilitation, special education and independent living services has proven to be one of our culture's most profitable investments in productivity and quality of life. When I contracted polio at age 18, traditional medicine predicted my death within days. Dedicated rehabilitation professionals not only saved my life and rehabilitated my body, but also inspired me to think seriously for the first time about my responsibilities to myself and to other human beings. I was encouraged and assisted to complete a university education, and to become independent and productive.

Rehabilitation, although young and still rapidly developing, is a foundational science. It addresses directly the basic and only legitimate concern of interdependent human society: the construction of a cultural context in which each individual is enabled to fulfill his or her potential to be productive in terms of the physical, psychological and material components of quality of life.

I will make every effort to participate in this process effectively. But I can promise you no miracles—no great leaps of progress. Alone, as one member of an enormous federal bureaucracy, I can do very little. Real solutions for society cannot be mandated from above by individual leaders, or handed down as paternalistic gifts by government agencies. They occur through the advocacy and the cooperative daily actions of each citizen or they do not occur at all. I believe that the President has appointed me to help him represent you by facilitating the cooperative and efficient imple-

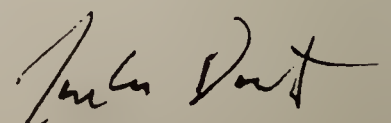
mentation of programs that we together create and that we together execute. In order to learn my new job, and to do it well, I will need your constant guidance, criticism and support and, above all, your full participation and your inspired advocacy.

Finally, I congratulate and thank all of you for your hard work, leadership and advocacy over the years which has given millions of Americans opportunities and hopes for independence that were undreamed of a century ago, and which has created a social and political context in which advocates with disabilities can hold positions of significant public and private responsibility.

You have led us through decades of historic progress. But we all know that there is still a long hard road to travel to the just, productive and fully accessible society of our dreams. We who are associated with rehabilitation and with the disability rights movement are confronted by grave challenges from within and without—and by even greater opportunities offered by an age of rapidly advancing technology in the most democratic and affluent society in the experience of mankind.

We stand at an historic crossroads. What we do now will impact the lives of millions of Americans and hundreds of millions of persons with disabilities throughout the world for generations to come. We have an inescapable responsibility to take positive action. We must have the courage to rise above politics, personality and turf—and to unite. We must join together to create, advocate and implement a firm foundation for lives of productivity, quality and dignity for all our children's children.

Yours for a just and barrier free society.



AMERICAN REHABILITATION

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REHABILITATION SERVICES ADMINISTRATION
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Frank Romano, Editor

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RSA's 10th Commissioner: Justin W. Dart

Justin W. Dart, Jr., was sworn in as the 10th Commissioner of the federal rehabilitation program on September 3. Department of Education Secretary William J. Bennett administered the oath of office to the new Rehabilitation Services Administration Commissioner who heads a \$1 billion program that yearly serves more than one million handicapped persons.

Since April, when he first learned of his impending nomination to be the RSA Commissioner, he visited each of the 50 states to meet the state and local rehabilitation and independent living executives with whom he will be working.

A wheelchair user since 1948, the Commissioner has been active as an advocate for the rights of disabled and disadvantaged persons for more than 20 years.

He served as chairman and as a member of the Texas Governor's Committee for Persons with Disabilities from 1980-85, as chairman of the Governor's Long Range Planning Group for Texans with Disabilities from 1982-84, and as vice chairperson of the National Council on the Handicapped from 1982-85. He continues to serve as a member of the Texas Council on Disabilities.

From 1956 to 1966 he founded and operated several businesses in the United States, Mexico and Japan. He founded Japan Tupperware, a division of Dart Industries (now Dart and Kraft), in 1963 and served as its president until 1965. From 1968 to

the present, he and Mrs. Dart have operated a private independent living program involving teaching, guidance and career planning for disabled persons in both Japan and the United States. More than 70 disabled and nondisabled persons have spent from six months to four years in their home, before moving on to successful programs of education and employment.

Commissioner Dart received his B.S. degree in 1953 and his M.A. degree in 1954 from the University of Houston, and attended the University

of Texas Law School from 1955-56.

A published writer, he has authored the *National Policy for Persons with Disabilities*, the federal policy developed by the National Council on the Handicapped, as well as papers on the philosophy and administration of independent living programs. He has also edited two books of poetry. He served as coordinator and lead editor of the Long Range Plan for Texans with Disabilities and of the *National Policy for Persons with Disabilities*.

He is married and has five children.

AFB Honors Xerox

The American Foundation for the Blind (AFB) has named the Xerox Corporation recipient of the second annual "Corporation of the Year Award," in recognition of the company's commitment to national programs and services for blind and visually impaired people.

Among Xerox's contributions are the following:

Xerox sponsored the publication of 20,000 copies of AFB's *Visually Impaired Professional Personnel*, a booklet distributed to corporate and university placement offices to encourage recruitment and retention of qualified blind and visually impaired people.

The corporation also enabled AFB to conduct staff training sessions and college recruitment at several Xerox offices throughout the United States.

For more than a decade, Xerox has made financial contributions to AFB and a variety of other blindness organizations, including Recording for the Blind, Princeton, N.J.; Chicago Lighthouse; National Accreditation Council for Agencies Serving the Blind and Visually Handicapped, New York, N.Y.; and Project Orbis, New York, N.Y.

Xerox also donated 200 Kurzweil Reading Machines, valued at \$6 million, to universities and libraries across the United States. One of these reading machines—which converts printed material to synthetic speech—is located in AFB's M.C. Migel Memorial Library and Information Center, the nation's largest circulating library on blindness and visual impairment.

Research Exchange: a Catalyst for Networking in Rehabilitation

Raymond A. Carroll

Diverse public and private rehabilitation agencies involved in the delivery of rehabilitative and long-term care services to persons with physical and mental disabilities have been acutely aware of the need to produce new ways of using available resources for comprehensive, coordinated, cost-effective services. Additionally, rehabilitation agencies and institutions, such as hospitals, mental health clinics, centers for retarded individuals, visiting nurse associations, nursing homes, and centers for vocational rehabilitation, have historically been fragmented and isolated from one another. The result has been uncoordinated rehabilitation services and frustration and failure for the disabled persons the system seeks to serve. The development and improvement of rehabilitation services and linkages promote and maximize the new efficiency and effectiveness that is required today. Rehabilitation networking and resource sharing is a solution which can reverse historic failings of this sort.

Recent articles in the literature have chronicled the introduction of networking in rehabilitation and the necessity of integrating resource sharing as a needed practice in the rehabilitation field.^{1,2,3} An excellent example of networking and sharing of resources takes place in the Rhode Island Rehabilitation Network (RIRN).

The Rhode Island Rehabilitation Network, sponsored by the Brown University Program in Medicine and the Rhode Island vocational rehabilitation agency is believed to be the first statewide rehabilitation network in the United States. The experiences of RIRN suggest that maximum benefits accrue from a network when the free exchange of resources is an ongoing part of networking activities.

The development of rehabilitation networking and resource exchange helps providers and recipients of service to effectively and efficiently meet their needs, avoid duplication of services and bring professionals together for mutual benefit. Although not directly measureable, participation in such an exchange is a very personally rewarding experience—the intangible benefits in achieving a sense of personal contribution to a community effort and a reciprocal sense of support from that community.

Benefits accrue not only to the agencies and institutions who participate in a rehabilitation network due to the wide range of resources to which they have access, but most importantly to persons with disabilities who are being served.

Although the logic of a resource exchange system for a rehabilitation network is easily understood, any attempt to initiate a resource exchange system requires an investment

of time and energy *to establish trust*. For this program to work, the members of one group must gain an understanding of the goals, experiences and constraints of the other group or groups. This can only be achieved by a willingness to share one's information and feelings and, especially, to listen to what the other person is saying.

Presently, the Rhode Island Rehabilitation Network is composed of public and private institutions of various kinds, ranging from hospitals to rehabilitation service agencies. All share the commitment to network together in order to share resources to improve rehabilitation services.

The fundamental premise on which an effective rehabilitation network is built is a willingness to share information, resources and services beyond an institution's customary operating procedures toward the common objective of improving rehabilitation services. Therefore, the Rhode Island Rehabilitation Network established a Resource Exchange System (REX) to expand and define linkages among network member agencies in Rhode Island. It was anticipated that the development of REX for the Rhode Island Rehabilitation Network would provide a mechanism for linking rehabilitation service providers, expanding collaborative efforts with the private sector, and assisting agencies

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Traumatic Brain Injury Rehabilitation

Henry H. Stonnington, M.D.

Based on data from the National Center for Health Statistics, each year approximately 750,000 people in this country have severe enough traumatic brain injuries to experience some form of coma or concussion. Head injury kills 70,000 people annually. The medical costs for this are staggering. The direct cost (hospital, nursing home, physician, allied health professional costs) exceeds \$6 billion. The indirect costs (loss of output due to mortality, morbidity, handicaps, and consequent loss of income) exceeds \$22 billion. This does not even begin to approach the psychosocial costs, which are impossible to estimate. Psychosocial costs are things like forced sales of homes, depression, and loss of income by other family members. All of these factors play a major role in every family which has a member who has sustained a traumatic brain injury.

These facts even get worse as we begin to learn more about brain injury. Recent data indicates that even moderate levels of brain injury, not requiring prolonged hospitalization, can result in neurological disturbances such as loss of memory, attentional deficits and changes in behavior. This can lead to loss of jobs at best and arrest and imprisonment at worst. I recently had a patient who after having been an all-American type of family man, sustained a traumatic head injury.

Although his physical deficits quickly improved, his subsequent behavioral deficits were of major consequence. He became an entirely different person. He abused his wife and children and eventually went as far as making a bomb, which he threw at police and which led to his arrest. We could prove this to be related to his accident and to be due to a definite, although subtle, damage deep in his brain.

Undoubtedly, the main reason (but not the only one) for this epidemic is a combination of motor vehicles and alcohol. This again increases the costs. Most of the victims are young people in the prime of their lives and, thus, instead of being a contributor to society, become dependent on society for the next 50 years.

What can be done to alleviate the catastrophic consequences of traumatic brain injury? The obvious answer would be prevention. This falls into two categories: (1) Teaching people not to drive under the influence and, (2) install into cars a passive restraint such as air bags which can stop the head from moving. In the meantime, we must address the injured and the families.

The key to minimized brain damage is in the first few hours after the injury. Complications must be prevented. The devastating complication of traumatic brain injury is depriving the brain tissue of oxygen

and allowing even greater damage to occur than was done by the trauma. A person who has had a brain injury has a tendency to drop his blood pressure and thus deprive the brain of circulation. In addition, as the skull is a closed box which cannot expand, if there is an increase in the intracranial pressure the only thing that can happen is that pressure would squeeze the brain and blood vessels and decrease the circulation. As a consequence of the damage, the fluid circulation around the brain malfunctions and the pressure builds up. Thus, immediate prevention of the lowering of blood pressure and dealing with the increased intracranial pressure is indeed an urgent matter. Preventing these complications depends on two things: (1) A knowledgeable rescue squad who not only knows how to keep the blood pressure normal, but also knows to take the injured person to a (2) trauma center which has an experienced neurosurgical team to deal with this emergency.

Once the injury has stabilized, the rest is the rehabilitative process. We are now realizing that rehabilitation needs to be an active network of programs which deals effectively with the wide variety of damage which results from brain injury. There is coma, physical motor deficits and cognitive deficits, as well as behavioral and emotional deficits suffered by both the patient and the family.

Lastly, there are major vocational issues. We also know now that the brain has great plasticity and can overcome many of the deficits if given the correct type of rehabilitation. Rehabilitation should not only compensate for deficits, but should try to overcome and cure them by stimulating the brain to invoke many of the reparative and regenerative capabilities.

In addition to rehabilitative strategies, there is great hope that there may well be a pharmacological approach. There is preliminary evidence that a number of drugs could potentially prove extremely beneficial. This observation comes largely from animal experiments. In our own laboratory, we have found that the old simple anticholinergic drug Scopolamine, which has been used for years for a variety of conditions, could significantly improve the outcome of the brain injured animal ¹. Feeney has shown the advantages of using amphetamines and the disadvantages of some other drugs ². There is also the possibility of drugs that may improve regeneration of nervous tissue ³. These are our future endeavors which we must support and follow up. It is of interest that some of these experiments indicate that these drugs only work if rehabilitative procedures go on at the same time.

In order to give our patients the present state of the art rehabilitation management, we need a network of programs which offers a menu of services for the patient and family. This network is run by a truly interdisciplinary team and prevents patients from falling through this net. It needs to be tied closely to the acute program to prevent patients such as the "minor" head injuries from getting lost.

The key to minimized brain damage is in the first few hours after the injury.

There are five major phases of management that make up this rehabilitation network:

Phase I: Surgery and Coma

There are two aspects to this phase. There is first of all, the neurosurgical aspect. This includes the rescue team, the emergency room and the neurosurgical trauma management. The rehabilitation team needs to be involved here in a supportive manner, such as in preventing contractures, getting to know the family and starting a program of teaching and counseling for the family. In addition, there is an important nutritional aspect as these patients need a greater amount of protein than expected.

We are now realizing that rehabilitation needs to be an active network of programs which deals effectively with the wide variety of damage which results from brain injury.

The second aspect is coma management. There are different degrees of coma which have been classified particularly by the Glasgow Coma Scale. In this scale, a score of three is the greatest depth of coma with absolutely no response, and fifteen is essentially fully responsive, although even with fifteen the person can still have major deficits. Initially the patient is managed by the neurosurgeon, but as soon as the neurosurgical aspects have stabilized and no further surgery is necessary we get to the stage when the rehabilitation team may need to take over. It is at this stage that a "sensory stimulation program" may be tried. Patients can remain in deep coma for days, weeks,

months or years. Although it is the sign of severe damage, coma in itself does not mean that it has any relationship to the degree of recovery once the patient comes out of coma. Much of this is still very controversial and much more work needs to be done in this area.

Phase II: Acute Rehabilitation

In this phase the patient is transferred to an interdisciplinary rehabilitation unit, preferably one that specializes in head injury rehabilitation. At this stage, the patient may be just responsive, and/or may be severely agitated and/or may have severe physical, cognitive and behavioral deficits.

We have found that participation by the family is vital at this stage. A severely agitated patient often is calmed by the presence of a family member, if at all possible around the clock. Often patients have a reversed sleep/wake cycle which can be treated by certain pharmacological agents. Usually these patients are on seizure prevention medication, but the selection of the right type of medication is vital as some tranquilizers, for example, inhibit recovery. Usually these patients need a full complement of professionals, such as the rehabilitation physician (physiatrist), rehabilitation nurse, physical/occupational/speech therapists,

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Homebased Employment for Disabled Persons

A Choice, Not a Foregone Conclusion

James P. Vagnoni and Kirsten MacLeod

Any number of reasons might prompt someone to work at home, instead of on-site in the business environment. The development of computer and telecommunications technology has expanded *telecommuting* employment possibilities, even in a service economy where most jobs are office oriented. Working at home can sometimes be the only option for certain individuals, like new mothers, or persons with physical handicaps. Two severely disabled persons, Sister Mary Jude Adams and Joe Johnson, however, have excellent, and rather unique, reasons.

Computer, business, rehabilitation, and general literature, when addressing the topic of in-home computer work, almost always cite its value to persons with disabilities. Claims in these books, magazines and journals range from providing handicapped people with an employment option to pouring down upon them the ultimate social salvation. However, in reality, most of these optimistic employment speculations have not come to pass.

As a strong advocate and originator of homebased employment programs, we, at the Center for Information Resources (CIR), are convinced of the efficacy of *computer telework* for people with physical handicaps; however, we have garnered some critical wisdom during our 10 years of creating employment opportunities in computer related occupations for disabled persons.

First, the center learned early that the structural barriers were formidable. Homebased computer work such as programming—especially on an entry level—posed insurmountable impediments for businesses. And, it was close to impossible for persons not steeped in experience to succeed as an independent consultant.

Second, the numbers of handicapped people who could function effectively in their homes probably do not warrant major or extensive programs. Efforts have been expended in many areas of the country to establish homebased computer work for persons with disabilities but the results have been limited. Those that

have been successful serve relatively few persons.

Such moderate outcomes are not surprising, since at-home work for the general population is no more widespread. Although proponents have been predicting for more than a decade that as many as 1 out of 10 people will be “telecommuting” by computer, the numbers are nowhere near that proportion. Given our current social/economic system, the forecasted “Third Wave” of sweeping employment in the home has been slow to unfold.

Third, and perhaps most importantly, handicapped people may not want to work at home. When the media first discovered telecommuting in the early 1970's and stressed its applicability “for the homebound handicapped,” the outcry from disabled consumer and advocacy groups resoundingly rejected the stereotyped picture of people with disabilities being fettered, shackled or otherwise confined to their homes. “Homebound” employment, whether or not the worker used a high tech tool like



a computer, reinforced the public image that handicapped equals shut-in.

The impact of the victory represented by the Rehabilitation Act of 1973 had yet to be felt and the push for at-home work seemed contrary to the spirit of the Act. Encouraging handicapped people to work in their homes seemed to eliminate the necessity for people to get out to work, and thereby mute this legislative triumph and its promise of independent living through an accessible mainstream. Advocates further argued that if one of the primary functions of work is to gain self-esteem through social contact, a "homebound" occupational setting would only continue the isolation.

Not discounting that for some handicapped people "homebased" employment might be the only means of working, earning money, and/or relieving boredom, *advocates emphasized the right of handicapped people to choose* where to work and the need for them to do things for themselves.

For Joe Johnson, of rural Millville, Pennsylvania, working at home is his choice and a temporary ar-

range. Joe's disability is one that immediately places him in the public mind as helpless and incapable. Because his C-4 level spinal cord injury totally restricts his bodily movement from the neck down, Joe is often viewed vocationally as unemployable and "homebound."

Joe considers himself neither incapable of gainful occupation nor chained to his home. Rather, he sees his working at home as transitional time between completing his academic work for a bachelor's degree, as he searches for a college that has the resources to support his disability related needs and a curriculum which meets his educational goals.

At age fifteen, Joe sustained his disability in an automobile accident. Despite the debilitating effects of his injury, after physical rehabilitation, Joe remained determined to continue his education. With the aide of an in-home tutor, he completed his high school diploma with a pre-college concentration. After graduation, however, Joe discovered that few schools could manage the level of personal care he required and meet his educational interests as well.

Joe's ambitions were bolstered when his counselor at the Pennsylvania Office of Vocational Rehabilitation advised him of a program in Philadelphia that offered opportunities for homebased employment and could accommodate the level of care required by his disability. Joe applied, tested very well and was interviewed by a review board of representatives from education, industry and rehabilitation. His presentation of himself was most impressive and his candidacy was whole-heartedly accepted.

Living away from home was difficult at first for Joe. On the fortunate side, Joe arranged to have a capable and full-time personal care attendant. Despite the vagaries of the fall and winter weather, Joe rarely missed class. In the fall semester he fell prey to a few illnesses, which complicated his adjustments to a big city environment, a difficult curriculum and separation from his family. In contrast, during the winter semester Joe remained healthy and completed the course near the top of his class.

Immediately upon completion of the training course, Joe applied and was admitted to CIR's "Electronic Cottage Industry Program"—a Project With Industry which solicits the cooperation of local businesses to prepare severely disabled persons to work in data processing. These persons have the option to work as independent contractors in their homes or, if they choose, they can move into transitional or competitive employment positions.

A disabled person's involvement with the Cottage Industry Program can be as brief as three months or it can range to as many as 24 months, depending on the individual's ability to learn the technical basics of their

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Update on Deafness and Mental Health

Robert Pollard, Ph.D.

Scientific advancement and changing administrative priorities and procedures impel rehabilitation professionals to constantly update themselves on the shifting forces that relate to their duties. Happily, some of these developments offer more effective and efficient methods for serving clientele. This article focuses on such developments in the field of deafness and mental health. Research and service developments have snowballed in the past 10 years. Crucial knowledge, techniques and philosophies have emerged that carry significant implications for rehabilitation services, particularly since hearing impaired persons with mental health problems are comprising an increasing percentage of the rehabilitation agency's caseload. Presented below is an update on the status of mental health knowledge and services for the hearing impaired, details of the value of securing these services, and useful guidelines for identifying service need, availability and effectiveness.

A Brief, Eventful Past

Aristotle's erroneous premise that deafness precludes the ability to think stifled the development of knowledge in deafness and psychology for thousands of years. Advances in deaf education and understanding of thought processes later occurred, but were slow to affect mental health

services. Pre-1960's psychiatric writings offered few useful insights and, at worst, advanced misconceptions regarding symptomology and treatment of hearing impaired persons. Misdiagnosis of retardation and thought disorders was common, largely due to lack of knowledge regarding American Sign Language (ASL).

In the past two decades, research and political activism have spurred a tremendous growth of knowledge of the abilities and needs of hearing impaired people. The political and scientific factors that influenced development of the deafness and mental health field are complex and will not be reviewed here. To give an indication of the present breadth of the field: over 200 programs now provide mental health services to hearing impaired people; 10 years ago, there were less than 50¹. Research and national conferences have similarly blossomed. In the past three years alone, our staff has presented over 100 lectures and research reports at conferences and meetings and published over 50 articles on various aspects of deafness, mental health and related topics. Several states boast inpatient and community residential treatment programs for hearing impaired persons; some states have hired directors of mental health services for this pop-

ulation, and even more now require publicly funded mental health programs to specifically address their unique service needs.

Though much improved, insufficient dissemination of advancements in this field still leads to diagnosis and treatment errors. This is a further reason to educate rehabilitation personnel so they may recognize the need and appropriateness of mental health services for hearing impaired persons.

Recent Clinical Developments

Psychopathology: Data collection efforts involving hearing impaired mental health consumers have altered beliefs about the frequency and type of psychopathology in this population. It was not long ago when severe behavior disorders and psychoses, particularly paranoid schizophrenia, comprised the bulk of hearing impaired diagnoses. There is now a growing diversity in symptom presentation and in resulting diagnostic decisions. Research at the University of California Center on Deafness (UCCD) indicates that the hearing impaired population is presenting mental health problems and symptoms of nearly the same frequency and diversity as the general population. While this idea had been advanced by theorists, it has only recently become supported by re-

search data. It is likely that this trend reflects not only improvements in evaluation and diagnosis of the hearing impaired client, but also a growing willingness on the part of the deaf community to seek mental health services as providers display concern and knowledge about their communicative and cultural uniqueness. Future advancements in mental health knowledge and services depend on a shared commitment to cultural awareness, open communication and scientific and political activity.

Other advancements relate to the growing awareness of diversity within the hearing impaired population. Deaf-blindness, rubella-induced deafness, and later-onset hearing loss are three presentations of hearing impairment that are getting increased research and clinical attention. The foci and modes of mental health services provided to these populations differ in important ways. Unfortunately, knowledge of such recent developments has not reached the general mental health community, which remains largely uninformed of deafness and mental health basics. UCCD is preparing a monograph on special hearing impaired clinical populations that will do much to address the dissemination problem of new developments in this field.

Finally, great strides in understanding of psychosocial development of hearing impaired people have been made. While too diverse to review here, many of these carry strong implications for both treatment and prevention of mental health problems and social and academic difficulties. UCCD studies in child-parent dialogue and in social cognition processes are examples of such relevant psychosocial research.

Psychological Assessment: Many tests and procedures commonly used

Over 200 programs now provide mental health services to hearing impaired people; 10 years ago, there were less than 50.

by clinicians are inappropriate for hearing impaired clients due to factors such as vocabulary/reading level, frequency of English idioms, invalidity of signed "translations" of test materials or instructions, and lack of norms for hearing impaired subjects. Until recently, the clinician had few tools with which to assess the deaf client, except for some nonverbal "IQ" tests, the hearing impaired version of the Scholastic Aptitude Test, and the "projective" personality tests.

New tests have now been developed and data regarding test selection, administration procedures and norms for hearing impaired subjects have been published. Among the more notable recent achievements are: norms for deaf children on the WISC-R "IQ" test; a guide for selecting tests appropriate for hearing impaired clients²; ongoing research on an ASL version of the "MMPI", a widely used personality test³; a commercially available ASL version of the "16-PF", another personality test; a measure of social/emotional abilities normed on deaf students⁴; a test of Signed English abilities normed on hearing impaired persons⁵ and an assessment guide oriented to the field of rehabilitation⁶. Neuropsychological assessment is the subject of ongoing research and several publications from UCCD, including a special brochure for rehabilitation counselors on the subject⁷. In addition, mental health assessment in its broad focus (including mental status exams, history taking and other assessment issues) is the topic of UCCD's newest monograph⁸. It is an excellent text for rehabilitation professionals and

others who are becoming newly involved with hearing impaired persons' mental health concerns.

Current Practice Philosophies

In addition to the above technical developments, theoretical advancements in service provision have greatly affected the deafness and mental health field. A number of principles are viewed as fundamental.

Service Quality: Flexibility and diversity of clinical services and a broad base of staff skills are hallmarks of effective service provision to this group and should be reflected in the policies and development of agencies seeking to provide mental health services to hearing impaired persons.

The effective service provider must have skills supplemental to those of the "standard" clinician, and specific competencies have been detailed elsewhere.⁹ The ability to communicate with the client and an understanding of basic issues in deafness (audiology, education, language development, culture), in mental health (diagnosis, treatment), and in their common ground (psychosocial development of deaf persons, psychological effects of late-onset hearing loss, etc.) are most important. The cultural, linguistic and educational characteristics of the hearing impaired population are diverse. We cannot neatly predict client needs and optimum service modalities from knowledge of these factors alone. A broad base of clinical skill—a "general practitioner" background—is necessary. Proficiency in hearing impairment alone is too restrictive. Clinical knowledge gleaned from ongoing research in deafness and mental health must be combined with

The provider must be familiar with the implications of the client's hearing loss and communication mode for testing therapy and diagnosis.

standard and emergent techniques from the "mainstream" psychology and psychiatry fields.

Consultation and training in the field of deafness and mental health should be a high priority for clinicians and programs specializing in this area. These efforts are reaching growing numbers of persons, and the impact is immeasurable. Formal clinical training in deafness and mental health is presently limited to a few masters level programs and internship opportunities. Efforts to establish doctoral level programs have been undertaken and are likely to blossom within this decade.

Communication: Services must be provided in the *client's* preferred mode. Client choice of ASL, Signed English, voice and residual hearing or a gestural/idiosyncratic communication system must be accepted as a given; it is the provider who must accommodate to the communication needs of the client. This necessitates use of rare multi-lingual clinicians or access to professional sign language interpreters. Use of *professional* sign language interpreters, hopefully with experience in mental health settings, is an appropriate procedure for the clinician insufficiently skilled in manual communication, provided the clinician learns and heeds current recommendations regarding this strategy of service provision. A number of publications and conferences have recently appeared in this field, including two popular brochures available through UCCD.⁷ Yet, communication alone is insufficient for treating or assessing the hearing impaired

client. The provider must be familiar with the implications of the client's hearing loss and communication mode for testing, therapy and diagnosis.

Service Accessibility: The diversity of the hearing impaired population presents complex service accessibility problems. Associating mental health services with any one agency (e.g., a service agency for the deaf, a speech and hearing center, a mental health center) will necessarily limit the likelihood of contact with a broad segment of potential hearing impaired clients. Factors of culture, language, income, and age at onset of hearing loss disperse this population across wide boundaries accessible only through strong networking efforts. The rarity of the deafness and mental health specialist creates further strains on accessibility, both in terms of caseload and geographic access. At UCCD, clinicians travel to satellite offices in outlying communities on a weekly basis. Satellite locations should be chosen, not only by virtue of their geographic distribution, but also on their propensity for attracting different segments of the hearing impaired population. Maximizing access of the full range of hearing impaired people to mental health services is the overriding principle and, like communication, is a burden to be borne by the service provider.

Treatment Modality: There are few reports of controlled studies examining the efficacy of various treatment modalities with hearing impaired clients. While such projects are currently being conducted, one must turn

to the general literature in psychotherapy for current developments. Usefulness of new modes of treatment must be considered in light of the clinician's experience in the field of deafness. Multiply-handicapped, ASL native, elderly, college educated, deaf culture, "hearing culture," minimally language skilled, and neurologically impaired are just a few of the possible characteristics that a hearing impaired client may present. Clearly, no one treatment modality will be applicable to all, particularly with the added complication of varying presenting complaints and forms of psychopathology. As detailed above, a broad, flexible array of treatment techniques is thus recommended. At UCCD, there is an attempt to balance and broaden the makeup of the clinical staff with respect to therapeutic modality preference or training. In addition, continuing education occurs through in-service training, professional leaves and research and clinical collaboration to infuse new ideas and promote eclecticism.

Due to the frequency of vocational and other overlaying service needs in the hearing impaired population, treatment flexibility must include strong networking efforts. Mental health programs must seek and maintain cooperative relationships with vocational rehabilitation, Supplemental Security Income/Aid to Dependent Children offices, audiologists, speech and hearing centers, leaders of the deaf community, interpreting referral agencies, and education programs. These contacts are established in most locations with a sizable hearing impaired population. More frequent updating and formalization of these network systems are needed and outreach is an ongoing concern, particularly in rural areas.

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Kathleen Spear: A Profile in Accomplishment

Edna P. Adler

As the first deaf-blind person ever to serve as a State Coordinator of Deaf-Blind Services, Kathleen Spear knows whereof her constituents speak. Deaf and blind all her life as a result of a delivery room birth accident, Mrs. Spear endeavors through her lifetime experience with her disability, her education and her professional training and zeal, to assist deaf-blind persons in her state in their struggles to achieve.

A Native of the Bronx, New York, where she obtained her early education at public and private schools, Mrs. Spear readily acknowledges the individuals, programs, institutions and technology which have enabled her to reach her present level of accomplishment.

Serving as State Coordinator for Deaf-Blind Persons (SCD-B) in Pennsylvania, Mrs. Spear is in a unique position not only to put her special knowledge and experience to full use, but also to serve as an important role model for young deaf-blind persons. In her first year with the Pennsylvania Bureau of Blindness and Visual Services, she is appropriately devoting most of her time to program development and public relations/education. Workshops for agency field staff who serve as "resource persons" for deaf-blind clients

residing within their geographic area and development of a new information brochure for the public which describes the state's VR program for deaf-blind people are among her completed projects. A newsletter dealing with information and issues relevant to deaf-blindness is in the development state. In her role as SCD-B, Mrs. Spear hopes to further public awareness of deaf-blindness and the achievement of deaf-blind people living in Pennsylvania. In this regard, she proudly reports that, in June of this year, for the first time in history, six public officials throughout Pennsylvania acknowledged the "Helen Keller Deaf-Blind Awareness Week" by proclamation. As a first step in identifying those who are deaf-blind, Mrs. Spear sees a critical need to define "deafness" and "blindness" in language which the general public can easily comprehend. She feels strongly that the public needs to know that although deaf-blindness is not an easy condition to live with, adequate education, training and opportunity has enabled many deaf-blind persons to realize useful and comparatively normal lives. At this writing, she is optimistic that Pennsylvania will soon have an annual Deaf-Blind Awareness Day, statewide.

Her work as SCD-B requires extensive travel throughout Pennsylvania. Travel is also extended to other states to participate in conferences where Mrs. Spear's personal and professional experience with deaf-blindness promotes a more realistic understanding of what more than a few people consider the most devastating of all human handicaps.

Mrs. Spear is an active member of the American Association of the Deaf-Blind and has a long standing association with the Helen Keller Center for Deaf-Blind Youths and Adults, at Sands Point, New York. She is one among the first to receive a professional evaluation at the center which culminated in a brief stay which afforded her the opportunity to brush up on her teaching skills and acquire sign language skills.

Kathleen Spear may be regarded as a modern-day Helen Keller in that she has been successful in overcoming the obstacles inherent in life-long deaf-blindness. Attitude has been a recurring obstacle for her, as it is for many disabled persons. A sense of independence was nurtured in childhood, fostered in part by a family that appears not to have realized or could not accept the dual nature of her handicap. They were able to

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Criteria for Identifying Rehabilitation Research and Demonstration Projects

Joseph Fenton, Ed.D.

The purpose of this article is to encourage the private and voluntary research sector to use the recently accepted government-wide criteria that defines "rehabilitation research" as it relates to handicapped persons. This criteria, formulated by the Interagency Committee on Handicapped Research, is currently used by 33 federal agencies for identifying rehabilitation research they currently support. Extending the use of the criteria to nongovernment researchers should result in more uniform data collection, better identification and tracking of research outcomes and costs, reduction of unnecessary duplication and overlapping, and identification of opportunities for coordination and collaboration of research efforts.

The background of its development and the criteria used by the 33 federal agencies sponsoring or supporting rehabilitation research follows.

While research relating to the rehabilitation of handicapped individuals has been supported by the Federal Government for many years, little was known about the aggregate or its parts. Which agencies were funding what? How much was being spent by each? By all? Was there unnecessary duplication of effort? To what extent was there overlap? Which institutions were the recipients of the funds? Who are the researchers? Are there gaps in meeting rehabilitation research needs? Are

there existing opportunities for inter-agency cooperation, coordination, or collaboration? Can there be more effective use of the existing funds and personal resources? What impact has the federal research investment had on the rehabilitation of handicapped individuals?

Recognizing the need for answers to these and many other significant questions, Congress enacted Public Law 98-221. Section 202(a) of the 1984 amendments to this law established the National Institute of Handicapped Research (NIHR) to promote and coordinate research to benefit handicapped individuals and to more effectively carry out the research programs under Section 204 of the amendments.

The mechanism promulgated within the legislation to implement the coordinating responsibilities of NIHR is the Interagency Committee on Handicapped Research (ICHR). More specifically the law mandates the Committee to identify, assess and seek to coordinate all federal programs, activities, and projects, and plans for such programs, activities, and projects, with respect to the conduct of research related to the rehabilitation of handicapped individuals.

As a first step toward implementing ICHR's legislative mandate, an Interagency Rehabilitation Research Information System (IRRIS) was con-

ceptualized as a database for storage and selective retrieval for analytic purposes descriptive information and data concerning the rehabilitation research sponsored by 33 federal agencies conducting rehabilitation research.

The IRRIS evolutionary process included the development of a thesaurus, a data collection format and data acquisition, coding, entry, and retrieval strategies.

A monumental task was reaching agreement on the criteria for determining "*what is rehabilitation research?*" A series of discussions with key federal agency representatives and nongovernment expertise in the areas of medical, psychosocial, education, vocational, and technological rehabilitation research resulted in the development of a "criteria" for identifying rehabilitation research and demonstration projects relating to handicapped persons. With the "criteria" in hand, an information form was developed to collect data from all federal agencies. The "criteria" statement follows.

Criteria for Identifying Rehabilitation Research and Demonstration Projects

Research and demonstrations related to rehabilitation of handicapped individuals include all projects directed toward acquiring new, improved or the modification of existing knowl-

edge or techniques applicable to or impacting on the functional restoration, improvement or stabilization of physical, emotional, social, academic, and/or vocational performance and independence of physically and/or mentally disabled individuals.

The pursuit of the knowledge may relate to:

- rehabilitation education, staff training methods, and skills used by rehabilitation and/or rehabilitation related personnel;

- method and cost efficiency in the delivery of rehabilitation services;

- instrumentation to measure function and evaluate the efficacy of rehabilitation intervention;

- rehabilitation engineering technology and/or adaptation of devices and augmentative systems;

- identifying and reducing physical, psycho-social or environmental barriers (architectural, communication, transportation, housing or attitudinal);

- understanding the functional consequences of the disabling condition and the mechanisms producing, resolving or offsetting these consequences;

- techniques designed for better screening and identification of disability;

- prevention of secondary complications, recurrence or regression of functional loss; and

- methods of assisting handicapped individuals to improve interpersonal relationships and their motivation to function independently.

Studies not directly concerned with rehabilitation which provide basic background information on research utilization and demographics should be included, such as:

- methods of narrowing the time gap between the discovery of new knowledge, technology, and devices and their universal application (utili-

zation) through effective dissemination of results to the rehabilitation community; and

- acquisition and analysis of disability data to provide a better understanding of the prevalence, nature and origin of specific disabling conditions and their relationships to other factors (demographic, social, interpersonal, economic, vocational and health related variables, and those pertinent to service delivery).

BRS Information Technologies of Latham, New York is the data base vendor chosen to store the IRRIS research project information. That choice was made because most federal agencies as well as many in the nongovernment rehabilitation research community and hundreds of major universities, medical schools and colleges in the United States and overseas are BRS subscribers. With IRRIS being an open public file, all BRS subscribers can readily execute on-line search directly through their libraries or offices by using the entry data base label "IRRI." Non BRS subscribers can access the data by contacting the National Rehabilitation Information Center (NARIC) at 4407 8th Street, N.E., Washington, D.C. 20017 or by calling their toll free number, 1-800-34-NARIC. NARIC is funded by NIHR to "disseminate information" to a wide audience.

Adaptation by the nongovernment research community of the rehabilitation research and demonstration criteria now in use by the government agencies has the potential for enhancing the state-of-the-art of uniform information gathering, retrieval, and dissemination. It will avoid the continuous "reinvention of the wheel," produce better planning strategies, identification of priorities, opportunities for collaborative ef-

forts, and, most importantly, enable rehabilitation service providers to utilize the new knowledge gained from the research findings so that the best interests by handicapped individuals will be served.

Dr. Fenton is Executive Director, Interagency Committee on Handicapped Research, National Institute of Handicapped Research.

AR Audio Cassettes Now Available

Taped copies of *American Rehabilitation* are available to blind and physically handicapped persons through local regional offices under the National Library Service for the Blind and Physically Handicapped. Contact your public library for the location of the regional library which serves your state.

KALEIDOSCOPE. The International Literary and Fine Arts Magazine By Persons With Disabilities. Semi-annual. United Cerebral Palsy and Services for the Handicapped, 326 Locust St., Akron, OH 44302. \$8.00 in US; \$9.00 international. Single copies, \$4.00 U.S. and \$5.00 international.

DISABLED ADULTS IN AMERICA and DISABLED ADULTS OF HISPANIC ORIGIN. Statistical reports drawn from Census Bureau data. The President's Committee on Employment of the Handicapped, 1111 20th Street N.W., Washington, DC 20036.

COOPERATIVE PROGRAMS FOR TRANSITION FROM SCHOOL TO WORK. National Institute of Handicapped Research, 330 C Street S.W., Washington, DC 20202.

NEWS, NOTES, ANNOUNCEMENTS

Migel Awardees Announced

The American Foundation for the Blind (AFB) has named Russell C. Williams, Ph.D., of Bethesda, Maryland, and Agnes M. Callahan of Lexington, Massachusetts, to receive the 1986 Migel Medal honoring dedication and achievements which have significantly improved the lives of blind and visually impaired people.

The Migel Medal was established in 1937 by AFB's first president, M.C. Migel, and two medals are awarded annually, one to a professional in the blindness field and one to a layperson. Dr. Williams will receive the professional award and Ms. Callahan will receive the layperson award at a special ceremony October 23 at the close of AFB's annual Helen Keller Seminar in New York City.

National Campaign Seeks to Increase Disabled Voters

An extensive and concentrated nationwide effort to expand the participation of disabled Americans in the election system was announced recently by the National Organization on Disability (NOD).

Led by NOD and a new coalition of more than 30 of the nation's leading disability groups, two intensive and complementary campaigns are being conducted simultaneously on a non-partisan basis: *Disabled Citizens at the Polls* and *Disabled But Able to Vote*.

A major thrust of the *Disabled Citizens at the Polls* campaign is to assist, educate and train the country's 13,000 election officials and one million poll workers on how to improve the accessibility of polling places and how to make voting easier for disabled citizens.

The simultaneous *Disabled But Able to Vote* campaign is seeking to increase the registration of disabled voters nationwide.

AFB Establishes Hotline

The American Foundation for the Blind (AFB) has established a free telephone hotline to answer queries about products, books, services, technology, and requests for general information about blindness.

The AFB hotline, 800-AFBLIND (232-5463) is in operation from 8:30 a.m. to 4:30 p.m. Eastern Standard or Eastern Daylight time, Monday through Friday. Calls to the hotline can be made from anywhere in the contiguous, continental United States. New York residents should use (212) 620-2174 to reach the hotline.

Ski for Light Week Scheduled

Ski for Light invites all blind and visually impaired adults who want to learn how to live a more physically active lifestyle to apply to be a part of the 1987 International Ski for Light week in Traverse City, Michigan. Beginners are encouraged to participate.

The 12th annual Ski for Light

event will take place from Sunday to Sunday, February 1 through 8, at the Grand Traverse Resort.

For an application and information contact (in braille or typewritten form) Ms. Judy Dixon, 1104 N. Stafford Street, Arlington, VA 22201. Telephone: (703) 276-9191.

NOD Announces Awards Program

Continuation of a grant from Westinghouse Electric Corporation to carry out the National Organization on Disability's (NOD) fifth annual Community Partnership Awards Program was announced recently by NOD.

Awards totaling \$20,000 will recognize communities for developing local voluntary programs that improve the lives of people with disabilities. Awards will be presented to 13 winning communities in Spring 1987.

Deadline for entering is January 31, 1987. Candidates will be judged on accomplishments during calendar year 1986.

For further information contact Ms. Carol Boyer, National Organization on Disability, 2100 Pennsylvania Avenue, NW, Washington, D.C. 20037. Telephone: (202) 293-5960. TDD: (202) 293-5968.

Pan American Rehab Conference Set

The 4th Pan American Conference on Rehabilitation and Special Education is scheduled for March 15-18, 1987, in Centro de Convenciones de Acapulco, Acapulco, Mexico.

Registration fee is \$35. For further information, write: Pan American University, 1201 W. University Drive, Edinburg, Texas 78539-2999. Telephone: (512) 381-2287.

TOPIC OF STATE

JOBS NOW in Illinois

Finding and keeping qualified workers are major challenges for any business, but it just got easier for employers in Illinois. With a single, toll-free phone call to 1-800-JOBS NOW, they can tap into a free placement service that provides a selection of qualified candidates for any job within 72 hours.

This quick and easy, money saving, no obligation service is the JOBS NOW network of the Illinois Department of Rehabilitation Services (DORS). JOBS NOW instantly screens and matches employment openings with qualified local candidates who have disabilities. Inaugurated and test marketed in five pilot regions a year ago, it was recently made operational statewide.

Virginia Rehabs 3,790 in FY 86

More than \$3 million annually will be returned to the economy as a result of the Virginia Department of Rehabilitative Services' (DRS) efforts during FY 1986. This amount represents the tax dollars that will be paid in one year by the 3,790 persons with disabilities who were rehabilitated throughout Virginia during the year.

The rehabilitants' conditions cover a wide range of disabilities with the largest number—1,916—having mental and emotional disorders. There were 803 persons rehabilitated with orthopedic disorders, which constituted the second largest disability category. Sixty-five of the rehabili-

tants were persons with very severe disabilities.

Courage Card Competition Opens

Artists and photographers are invited to enter their work in the 1987 Courage Cards competition.

Courage Cards are original art holiday and all-occasion cards sold to benefit Courage Center, a nonprofit organization headquartered in the Minneapolis suburb of Golden Valley, Minnesota. The Center provides rehabilitation and independent living programs for children and adults with physical disabilities and speech, hearing and vision impairments.

Selected artists and photographers receive a \$100 honorarium and loan their work to be reproduced as Courage Cards.

Deadline for entries is February 17, 1987. For information, contact the Courage Cards Office, Courage Center, 3915 Golden Valley Road, Golden Valley, Minnesota 55422. Telephone: (612) 588-0811.

Supported Employment in Michigan

Three Michigan counties and the Detroit metropolitan area have been selected as initial sites to pilot a new state program of supported employment.

Allegan, Berrien and Washtenaw counties will join the Detroit area to implement the program, which will enable adults with severe handicaps to work at paid jobs in their communities.

The program is administered by the Michigan Rehabilitation Services in cooperation with Special Education Services in the Department of Educa-

tion and the Department of Mental Health.

Each of the four sites will serve up to 50 severely disabled adults during the first year of the program.

California is Site for HHD/Transition

Rehabilitation Services of Northern California (RSNC), current operator of Horticulture Hiring the Disabled (HHD) in Northern California, has signed a cooperative agreement with the National Council for Therapy and Rehabilitation through Horticulture to provide transitional services for local developmentally disabled (DD) youth. As a subguarantee of the HHD-Transitions grant from the U.S. Department of Health and Human Services' Administration on Developmental Disabilities, RSNC will become the second demonstration site to develop a school to work program involving modification of special/vocational education curricula to prepare DD youth for locally available entry level employment.

Goodwill Industries of Mobile Area, Alabama, was established in February 1986 as the first demonstration site under HHD-Transitions. Together, the two demonstration sites will serve 210 DD youth and place 105 of these youths into permanent employment during the next two years.

The project will be guided by a coalition of horticulture industry representatives, special/vocational education personnel, Developmental Disabilities Council representatives, and rehabilitation placement professionals. Industry participants will oversee that the program is designed to meet realistic industry manpower needs.

Language Used or Used Language?

Ron Bourgea

Superabundance. Sue these words for nonsupport.

... a definitive, global figure. Since *Webster's* definitions of these words say that each means "complete," I would say that the figures are *thoroughly complete*; one could say the figure is a 10! (Incidentally, this is another example of a metaphoric "tandem, nonfunctional phrase," shown by supplying the missing "and:" a difinitive and global figure.)

● *Inflated expressions:*

"RSA recently conducted a survey of VR state agencies concerning certain aspects associated with the handling of persons with head injuries." "RSA staff recently surveyed state VR agencies about handling certain aspects of head injured clients." (Even with the addition of one word in the second version, the revised version saves six words. More importantly, it is a more active presentation. Also, it corrects a point in logic: organizations, departments, agencies, etc., do nothing of themselves, their staffs do, therefore the addition of the word "staff.")

Is this group called a "working group" to distinguish it from the others, the "loafing group" and the "hell-raising group"?

"Finalized" is an Americanism that

should grate your euphonic senses. Finished or completed are both verbs that already exist, which capably express the non-turned- verb atrocity, "finalized!"

The recommendations belong to the group; therefore, in referring to the group (the unit), the pronoun "it" should be used.

If the items are for the Census, it is obvious that they will "be included in" the Census.

The original sentence used 14 words compared to 8 in the rewritten version.

● "... the *capacity* and *potentiality* to work." *Webster's* tells us that a capacity is a potentiality and that potentiality is a possibility. Potentially, the phrase is a wellspring of *inherent, innate, inborn, and intrinsic* possibility!

Careful writing. Simple writing does not necessarily mean clear writing.

Factual document. First off, the word "document" has a prime legalistic tone with a heavy content on "proof." Most papers that we talk about are speeches, laws, reports, analyses, articles, etc. Secondly, when the word is used, it has an intrinsic truthful value since it is "anything printed, written, etc., relied

upon to record or prove something." (*Webster's New World Dictionary*.) Thirdly, every document, speech, report, anlysis, article, etc. is composed of facts, be they truthful or erroneous. The author here, I presume, wants to speak of a report (or whatever) whose facts are valid. It takes more words to say that, but saying it says it the way it should be said. That's a fact! You can use this analysis to document it.

● *Noun Turned Adjective Morass:*

Everyone is getting into the "noun/ adjective bead-stringing composition area"—the phrase is both descriptive and exemplary—but nowhere more forcefully than in the information field. Here are two examples from a newsletter: "data and voice communications skills level" and "voice and data network optimization." Here is a simple test that will reveal whether or not you are "beading" nouns as adjectives: If a "the" comfortably fits before each word in the string, the words are nouns and you should use the phrase with caution. It may take a few more words to say what you want to say, but your audience should appreciate your extra effort.

● While "wise" is used wisely in such expressions as *clockwise, likewise, and lengthwise*, it would be wise to watch what you "suffix" it to (suffixwise, that is). Sports announcers have wantonly "wised off" lately with such pronouncements as "foot-speed-wise, he can't match him" and "one of the things they've done adjustmentwise . . ."

Pastiche.

● The figure of speech (especially the simile and the metaphor) brings a fresh variety to writing like the contrast between fresh fruit and the frozen kind. Here are some examples:

"The women have nothing in common except for bloodline and a kind

Another tool of the trade is emphasis through *enlightened repetition*. The example is from John Irving: "It was about the death of dreams; it was about how hard the dreams die."



The Promised Land. The difference between the right word and the

- The following is an excerpt from John Irving's introduction of poet Donald Justice: "The wonder of Donald Justice is that he has taken such pains to make himself under-

The certification program is sponsored by the Association of Rehabilitation Nurses (ARN) and is solely offered by ARN, an organization of

This book is an introduction to preventive cardiology. Its objectives include acquainting readers with the present knowledge of the factors contributing to the epidemic of coronary heart disease afflicting most Western or industrialized nations; giving an appreciation of the pitfalls in analyzing even carefully conducted population research; and introducing readers to the scientific basis of prevention and the methods that can produce behavioral change and affect a patient's health, especially as they relate to primary and secondary prevention of coronary heart disease. Emphasis is placed on the role of the individual clinician as a therapist.

Networking

(Continued from page 3.)

in locating the resources they need in order to remain viable, effective service providers. The Resource Exchange System in RIRN acts as a pool of information distributed to network members to promote a barter-style exchange of resources, trading those available for those needed. Sarason⁴ uses the term *barter economy* to characterize the theme of a resource exchange network.

Sarason goes on further to state: "One connotation of that term refers to the fact that money is not exchanged, although each partner in the transaction puts a value on what he or she gives and gets. That value may take into account time, services, information, or ideas, but in our experience a person enters into an exchange with relatively little 'cost accounting' of what is being given and gotten. Far more often than not, the person is motivated by a strongly felt need as in predisposed to give a lot if that need can be met, which is precisely what the person who meets that need also frequently feels."⁴

The *sharing* of resources between member agencies is the substructure underlying REX. This philosophy serves a dual purpose to network members—maximize the use of available human and material resources, and minimize expenditures by member agencies. With an information system such as REX acting as a basis of common understanding among providers, great potential exists for inter-related activities and relationships between network members.

The attractiveness of a resource exchange system is appealing to the Rhode Island Rehabilitation Network, since the system benefits rehabilitation providers throughout

the network. Moreover, the larger dividend in exchanging resources is not necessarily the resource itself, but the process of getting there by the communication that creates new linkages and connections.

The network undertook the task of initiating resource exchange by developing a data base which would lead to a directory of resources. Planners agreed that rather than survey every resource available for exchange in the network, the initiative should focus in three areas which were deemed important by the membership. Areas

available for free exchange. The inventory sheet was mailed to all network members with a cover letter explaining the process of the investigation. The very high return rate reflected the strong interest in initiating a resource exchange system for the network.

In May 1984, the Rhode Island Rehabilitation Network published and distributed to its members the first edition of the Resource Exchange System. The directory was developed to promote the sharing of resources

The experiences of RIRN suggest that maximum benefits accrue from a network when the free exchange of resources is an ongoing part of networking activities.

selected for inclusion in the inventory were equipment, space and training. Equipment included such items as wheelchairs, portable ramps, TDDs, braille typewriters, word processors, and transportation related equipment, such as vans with lift capacities. Space was also deemed an important resource area to network members so that large meeting rooms, small conference rooms and the like were surveyed. Moreover, training offerings listed by the network members were also surveyed for inclusion in the directory. It was felt that this information would prevent the development of a training program which was already available through another agency.

The process by which the inventory was initiated began with publication of an article in the network newsletter, *NEXUS*, announcing the commencement of a resource exchange directory project to all rehabilitation network members. Subsequently, an inventory sheet was developed in order to ascertain which resources were

between network members without finances being a prerequisite for the exchange.

The instructions for using the directory suggest that if a network member is in need of a resource in the general areas of equipment, space or training, one should go to the directory and review the list of agencies and contact persons who are offering to exchange the needed resources. Then, inter-agency contract is initiated and arrangements are made for the exchange. As noted previously, in our view, the important part of exchanging resources is not necessarily the resource itself, but the process of getting there by the communication that creates new linkages and connections.

Building on the spirit and practice of resource exchange, the network developed a program called "Networking Resources" for the adult who is developmentally disabled. The program, which is funded by the Rhode Island Developmental Disabilities Council, integrates adults

with severe developmental disabilities into existing community programs and services. Network agencies exchange information, pool resources and work together to provide needed programs and services in the areas of transportation, leisure time activities, volunteering, socialization, and adult daily living skills.

A particularly good example of resource exchange in rehabilitation takes place in the project's special Resource Service Committee. Representatives from various network member agencies, e.g., United Cerebral Palsy of Rhode Island, Rhode Island Easter Seal Society, the state vocational rehabilitation agency, workshops for retarded citizens, and the Paraplegia Association of Rhode Island, meet as a committee with the person who is developmentally disabled to identify needs and to provide services that address those

needs. Existing resources are utilized and exchanged to develop a comprehensive rehabilitation plan. Other dividends accrue from the resource committee as members learn to work together on a common objective for mutual benefit.

Resource exchange is the catalyst for networking in rehabilitation; and, thus, the connections and partnerships achieved through networking and resource exchange offer new ways of utilizing available resources for comprehensive, coordinated, cost-efficient rehabilitation services for the disabled of this country.

Moreover, experience has further demonstrated that the resource exchange process produces a synergy that often times leads to innovation as well as an increased array of unanticipated resources.

Mr. Carroll is Project Director, Com-

prehensive Rehabilitation Center, and administers the Rhode Island Rehabilitation Network, Providence, Rhode Island.

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TBI

(Continued from page 5.)

psychologist, social worker, and therapeutic recreational therapist. A full program of physical, cognitive and behavioral therapy is utilized all day long. This phase can last anywhere from three weeks to a year.

Sometimes the behavior is so difficult that a specialized behavioral unit is necessary. The regular psychiatric units are usually not sufficient. Ideally, these patients need a psychiatric behavioral unit that is specifically designed for the brain injured.

Phase III: Day Rehabilitation Program

Even at the end of a stay in the rehabilitation unit, the patient usually has still a long way to go before he reaches his maximum recovery. Often at this stage, an intense day

rehabilitation program is the ideal program. This has all the components of the rehabilitation unit except that the patient lives at home nights and weekends. The program is less of a medical model, the family becomes even more involved, and the cognitive and behavioral aspects become more pronounced in the program.

Phase IV: Cognitive-Behavioral Program

A large percentage of patients come to a stage when they have progressed maximally from a physical point of view but still have a major cognitive and behavioral deficit which stops them from being employable. Often at this stage, living at home may have become a problem and they need to live in a "transitional living" situation.

Cognitive retraining has become a major method of treatment. Using computers to retrain memory, attention deficits, mathematics, and perceptual deficits has been shown to be a major advance in the management of these patients. Several thousand software programs have become available, from quite simple ones to highly sophisticated subtle ones. Psychologists have generally taken the lead in this area, but to be effective, cognitive retraining programs need to be a team effort between the psychologist and occupational and speech therapists in particular.

In this phase, the behavioral aspects need to be improved as much as possible and in addition, a special community re-entry program needs to be emphasized. Therapeutic recreation is vital at this stage in order to allow this disabled person to

The ultimate in rehabilitation is for the head injured to go back to work.

overcome social, educational, architectural, and behavioral barriers brought on by himself, the family and society. This becomes a prevocational phase which intensely works with the person to improve him enough to allow him to get ready to re-enter the work force. At this stage, all the other problems will have to be addressed, such as alcohol and drug abuse. This type of problem really can only be addressed at a stage when the patient's memory is sufficiently good to make such a teaching program comprehensible.

Phase V: Vocational Program

The ultimate in rehabilitation is for the head injured to go back to work. We have found that by far the most effective way to do this is to utilize a supportive employment model. In this, a counselor works one-on-one with his client as well as with the employer. The client is retrained on the job. The cost effectiveness of this model is that the client has a greater chance of maintaining his job rather than be left to fend for himself, as is often the case with traditional vocational retraining methods.

It is important to emphasize that the phases described above do not necessarily mean that all patients will go sequentially from one phase to another. Many patients need bits and pieces from any or all of these phases. People with brain injuries have very individual needs and the programs must be regarded more as an a la carte menu.

In order to have an adequate rehabilitation program which deals with the family as well as the victim, this type of network of programs is necessary. This can be provided by

coordinating state, university and private programs. There is a need for strong coordination. Various programs, both private and state, have appeared all over the country. This not only allows people to fall through an incomplete network, but also allows people to enter inappropriate programs. Much of what I have described is still controversial. It will be some time before we can be more definitive and rational in our advice. A great deal of credit for the progress that we have made goes to the consumer organization, the National Head Injury Foundation, which has helped patients and families in a great many ways and prevents them from floundering. There is no doubt that traumatic brain injury is a major problem of our time. However, with a team effort by the consumer, the health professional and the government agencies, I believe there is a great deal that can be done. The neurosurgeons, the pharmacologists, the physiologists, and the clinicians as well as the engineers are standing at

the brink of great new discoveries which will help to contain this tragic and costly epidemic.

Dr. Henry H. Stonnington is Professor and Chairman, Department of Rehabilitation Medicine, MCV/VCU Medical Director, Sheltering Arms Rehabilitation Hospital, Richmond, Virginia.

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MANAGEMENT AND EMPLOYEE TRAINING MATERIALS. For rehabilitation professionals. RPM Press, Inc., 223 1/2 North Jefferson, Wadena, MN 56482.

Homebased Employment

(Continued from page 7.)



particular job area. For example, those working in the realm of software development must demonstrate their ability and scope to perform the analysis and design aspects of the work, to develop the skills to carefully listen to and comprehend design specifications, and to acquire the personal discipline and organization capability required of someone working in an independent setting.

Joe Johnson fared very well in the Cottage Industry Program, and after the minimal three months began earning money as a contract programmer. Ironically, Joe's stay in the dormitories at the University of Pennsylvania proved to him that he could meet his goal of acquiring a college degree. During his training, Joe gained confidence and a sense of flexibility from his acquired skills and knowledge, and he designed for himself a unique college "co-op" program. Through this arrangement, Joe has been able to move back to his home in central Pennsylvania; though this is a rural area, Joe is able to take courses at a nearby college.

At the same time, through the brokerage of HandiSoft Corporation, a Philadelphia based contractual data processing firm affiliated with CIR's Cottage Industry Program, Joe works

as contract programmer writing software for a large medical center only 20 minutes from his home. The proximity to his corporate client allows him to meet with key staff, problem solve and make adjustments to his programs as needed.

In actuality, Joe is "telecommuting" some 150 miles each day from his family dining room. There, his custom designed work location requires only scant assistance from his parents. His HandiSoft PC runs in response to his mouthstick entered commands. Joe did experiment with voice input systems, but these proved slower and less efficient than this probe.

An even more novel telecommuting setting is the "electronic convent" where Mary Jude Adams, a Catholic nun who belongs to a contemplative religious order, both lives and works. Sister Jude is disabled by cerebral palsy, and she must use a walker and an electric cart to get around.

However, Sister Jude is not unique at her convent, the Regina Mundi Priory, in which all 18 sisters in the Order of Jesus Crucified live—all of them are in some way disabled. Her in-home work there is likewise com-

mon place, as the order has no independent means of support and the sisters earn their livelihoods through work on-site at the convent, such as performing laboratory testing for local physicians, operating a printing press, and running a ceramics workshop.

In addition to the monastic requirement of residence in the convent, because of her disability Sister Jude finds working at home much easier than not. Settled comfortably in the secretary's office of the priory, Sister Jude does contract data processing work on a microcomputer; both the work and the computer are supplied by the software development firm, HandiSoft.

Sister Jude grew up in St. Paul, Minnesota, where after high school she attended business school and worked briefly at a job requiring her to use a manual calculator all day. After she entered the priory, more than 25 years ago, Sister Jude began serving as the secretary for the order, in addition to working in the cytology laboratory and transcribing writing into braille for the blind sisters.

In 1984, Sister Jude read of a religious order of Carmelite nuns in Ohio who raised money for themselves through computer data entry work. She reasoned that she too could make money to aide in the upkeep of her priory through computer work, which is primarily mental and not physical in nature. As providence would provide, in November of that year, a newspaper article about the computer related vocational training at the Center for Information Resources caught her attention, and she called for more information.

This inquiry led Sister Jude to apply and test for admission into the 10-month program. She was accepted into CIR's Information Processing Program, which trains dis-

abled adults in data processing occupations such as word processing, automated bookkeeping/accounting, customer service, computer operations, and data entry. Sister Jude lived in University dormitories during the duration of the training, and was often an interesting sight on the campus as she drove through on her electric cart with her habit blowing in the breeze behind her.

Because she excelled in the Information Processing Program, Sister Jude was given advanced training and opportunities to work with a variety of software packages. Sister Jude completed a 12-week work experience internship as part of the Center's Cottage Industry Program, where she performed actual business applications, and later joined HandiSoft, the firm staffed by disabled programmers/data processors and associated with CIR.

As anticipated, this proved to be a very successful relationship. Sister Jude returned to the convent with her computer system. Contracted work for HandiSoft clients is sent to Sister Jude through telecommunications software, although occasionally some hardcopy work is necessarily dropped off in person. Although she works on a per contract basis, Sister Jude's schedule is almost full-time. She reports that her time spent on contracts averages 30 to 35 hours of work per week.

For Sister Jude and Joe Johnson, the advantages of their situations speak for themselves. Sister Jude is gainfully employed and her income helps support her order. Ultimately, her work also helps other handicapped persons, since clients referred by HandiSoft receive excellent and relatively low-cost services and satisfied customers allow HandiSoft to employ more disabled workers, who work both at home and on-site in

HandiSoft's accessible offices. About the only disadvantage, according to Sister Jude, is that "if HandiSoft keeps me as busy as they have, someone else will have to become secretary" of the order.

Joe's circumstance is likewise profitable and unique. Interestingly, while the level of Joe's physical disability certainly contributes to the special set of circumstances that singles Joe out, regardless of his handicap, very few young people of age 19 or 20 can successfully engineer a career development plan that entails alternating years of college course work and employment as a private programming consultant.

Unquestionably, commendations must go to organizations like the Rehabilitation Services Administration and the Pennsylvania Office of

Vocational Rehabilitation for providing creative programmatic resources. Such programs, like those of the Center for Information Resources, allow ambitious, bright and hardworking people like Sister Jude Adams and Joe Johnson, who happen to have mobility limitations but who also possess vision and perseverance, to pursue their personally determined horizons.

Mr. Vagnoni is Director of the Center for Information Resources (CIR), and national Chairperson of the Association of Rehabilitation Programs in Data Processing (ARPD). Ms. MacLeod is Coordinator of the Publications Division of CIR, and Editor of *Viewpoint*, the quarterly journal of ARPD.

Deaf Mental Health

(Continued from page 10.)

The Role of Rehabilitation Personnel

Rehabilitation agencies are often the first contact point for the hearing impaired client, and it is imperative that their counselors be familiar with the usefulness of mental health services, how to access them and how to evaluate and promote the quality of service providers or programs. The client may not be aware of the variety of mental health services available, nor be familiar with how these services can aid him. It is up to the rehabilitation professional to keep abreast of referral appropriateness and procedures.

Recognizing Service Need: Serious psychological disturbance such as psychosis, suicidal ideation or prolonged depression are easy enough to recognize as mental health concerns. Yet, "mental health" encompasses a much wider variety of areas, in-

cluding substance abuse, decision making, social skills training, behavior management, parenting, relationships, deafness education and adjustment, family therapy, and more. A referral should be suggested if the client shows interest in addressing concerns such as these. When the client contacts the mental health agency, the clinician can more thoroughly explain the strengths and limits of psychotherapy and answer questions.

Psychological assessment is another mental health service and an increasingly helpful referral for the rehabilitation professional. Questions in the areas of vocational interest and ability, academic skill, intellectual ability, neurological impairment, psychopathology, language and communication functioning, independent living skills, unconscious psychodynamic issues and conflicts, sexual and physical abuse, competency to stand trial, and more may well be

answered through psychological assessment. Consult with a psychologist when possible referral issues arise, so they may explain the benefits and limits of assessment for that particular case. Preparation of specific referral questions and contact with the clinician throughout the assessment process ensures that the resulting report will be of maximal benefit to you and the client.

Securing Mental Health Services: A call to any deafness agency will likely assist you in locating a recommended mental health service provider in your area. Deaf community service agencies and hearing and speech centers are often good resources. Also, every April, the *American Annals of the Deaf* publishes a national compilation of services for the hearing impaired; included are mental health services.

Evaluating Mental Health Services: Obviously, the availability and sophistication of mental health services for hearing impaired persons vary widely across the country. Minimal expectations for competent services were noted above. It is important for the rehabilitation professional to seek qualified service programs and providers before making referrals, yet the infancy of the deafness and mental health field results in a scarcity of truly qualified personnel. We must contend with the present state of sparse services and many service providers with few or developing skills in deafness. The rehabilitation professional can monitor and enhance the quality of mental health service provision by establishing ongoing relationships with selected service providers. Through periodic dialogues, particularly before and after referrals, the clinician and rehabilitation professional learn each other's needs and how to complement each other's abilities. Mutual prob-

lem solving and knowledge sharing will do much to nurture the relationship and ensure improved efficiency and usefulness for future referrals.

This networking effort should extend beyond the individual service provider to county and state administrators and politicians responsible for mental health service provision. Education and political support for mental health services for the hearing impaired population must be advocated and advanced by rehabilitation and other professionals in cooperation with leaders of the deaf community. If these efforts do not continually occur at numerous agency and governmental levels, development of knowledge and services will be unnecessarily delayed or abandoned altogether.

The information and recommendations presented here will undoubtedly be altered in the next 10 years. Current research and development efforts in diagnosis, treatment, professional training, and program planning will bear fruit rapidly. The growth of the deafness and mental health field promises to offer the rehabilitation professional a broad array of information and referral possibilities, but only if one keeps abreast of developments.

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CORRECTION

In the July-August-September 1986 issue of *American Rehabilitation* author James Vagnoni was mistakenly mentioned as being affiliated with the University of Pittsburgh. Mr. Vagnoni is in fact Director, Physically Handicapped Training Center, University of Pennsylvania. We apologize to Mr. Vagnoni for the error.

Spear

(Continued from page 11.)

acknowledge her blindness, but not her deafness. To some extent, the family's inability to recognize Kathleen's dual sensory impairment for what it was can be attributed to a medical diagnosis rendered when she was 18 months old, which stated that she was blind and severely retarded. In reality, she was severely hard-of-hearing and had a sliver of vision in her right eye. While living at home, young Kathleen had the freedom to roam the neighborhood which, fortunately, provided her with experiences that partially compensated for normal avenues of sight, hearing and playmates. Mrs. Spear recounts with amusement that her parents claim she was the only 4-year-old on the block with a police record, which they attribute to the fact that local police were frequently asked to find her and bring her home.

At the age of eleven, Kathleen was enrolled in the Deaf-Blind Department of the New York Institute for the Education of the Blind. This marked a turning point in her life in that the nature of her disability was no longer in question. In addition to affording her the opportunity for one-on-one instruction, which included mastery of finger spelling, Kathleen acknowledges her good fortune in that she also began receiving intensive speech therapy. In the course of speech therapy sessions, which extended for a period of seven years, she was fitted for and trained to use a hearing aid. By the age of sixteen, she was able to communicate on a one-on-one basis but only under very special circumstances. At this time, however, she was warned that her link with the hearing world was comparable to a thread which could break at any time. The break, which left her totally deaf, occurred in 1963,

when her son was an infant; she had become totally blind at age fifteen.

Kathleen completed her high school education at the New York Institute in 1952. She was class valedictorian and, along with some

she was offered an opportunity to complete the requirements for a Rehabilitation Teachers' certificate, she accepted.

In 1960, the certification program for Rehabilitation Teachers was

As the first totally deaf-blind person to earn a master's degree in California, and the only woman, she completed the course with a grade point average of 3.8.

hearing-blind classmates, fulfilled the requirements for a New York State regents diploma. She went on to earn her B.A. degree from Hunter College, where she maintained a straight "B" average in spite of the fact that she had no interpreters. Without interpreters she could not follow class lectures or participate in class discussion. However, much to her surprise, Kathleen found that there were students (and some professors too) who were willing to acquire the necessary skills to bridge the communication gap at least well enough to provide friendship and social outlets. The fact that she could be accepted for herself was the most valuable lesson she learned in college! Graduating in 1957 with a major in history and minor in education, Kathleen returned to the New York Institute for the Education of the Blind as a teacher in the Deaf-Blind Department. Her college summers spent as a teacher of newly blinded veterans and camp counselor of blind children had prepared her well for the assignment. At the time, however, she was troubled by a strong feeling that the need for professionals in the field of deaf-blindness might be more acute in the area of rehabilitation of adults than in the area of childhood education. Consequently, when, in 1960,

coordinated jointly by the Overbrook School for the Blind and the University of Pennsylvania in Philadelphia. Under this Program Kathleen fulfilled certification requirements while simultaneously taking courses for a master's degree. It was during her year at Overbrook that Kathleen met Industrial Arts Director Henry Spear. Kathleen and Henry, a man with normal sight and hearing, were married in 1962. Their son, Paul, was born a year later. The role of wife and mother was especially precious to Kathleen Spear because it was one which she, as a deaf-blind person, believed to be beyond her reach. The little family was soon a happy integrated part of their suburban community. Tragedy struck the Spear household on a cold February day in 1973, when Henry suffered a fatal heart attack. In addition to being a devoted husband and father, Henry Spear, according to his widow, had acted as a buffer between herself and the world. Once again she was forced to rely on her own resources: her family of origin was too far removed in distance and attitude to help her. The difference, of course, is that whatever decisions she made regarding the future would affect two lives, hers and nine-year-old Paul's. Today, as she reflects on the years of single

parenthood, Mrs. Spear feels they were harder for Paul especially in that he was forced to realize that the world did not always recognize his mother as the capable person he knew her to be. They were difficult years especially in that they did not have the material advantages which Paul's father had provided, but his home remained a place of love, and hard knocks could often be softened by a sense of humor. Now twenty-three, Paul is a member of the U.S. Navy and a junior in material engineering at Auburn University. Of this mother and son it can be said that their devotion to and pride in each other is evident.

Mrs. Spear became the first deaf-blind person to be successfully trained to use a guide dog in 1968. Although she can and has traveled alone with a cane, she feels that traveling with a guide dog is easier and safer. Consequently, she regrets the policy of most guide dog schools which bar totally deaf-blind persons from admission to their program. Mrs. Spear obtained Buffy, her third guide dog, in 1981, just before starting the Masters program in Counseling and Guidance at California State University, Northridge. Buffy and her mistress are a familiar sight in the downtown Harrisburg area and the high-rise apartment building where she lives. Buffy and Kathleen live alone and travel alone, except on rare occasions when an interpreter-assistant is available to accompany them. Fortunately, Kathleen is fluent in a number of communication modes, including print-on-palm and the use of a tellatouch machine, which facilitates communicating with the general public. She uses speech for expressive communication with hearing people. With her deaf and deaf-blind friends, however, she uses finger spelling and sign language.

The age of technology has greatly enhanced Mrs. Spear's level of independence. Examples include a braille telecommunications device called a Telebraille; a Silent Page signaling device, which is activated when the telephone rings; an Optacon and typewriter lens, used to monitor her typing for errors; and, most recently, a Mowat Sensor which is a sensory aid used to locate obstacles or landmarks when traveling in unfamiliar territory. Very soon Kathleen hopes to make use of a personal computer on the job through the utilization of a braille access device. Kathleen feels it should be noted that only one of the above-mentioned electronic aids, the Telebraille, was designed specifically for use by deaf-

festivities in Boston in 1980. In 1986, she was a presenter at the RSA Region III Eleventh Annual Conference on Deafness and Rehabilitation held in Philadelphia; and, in June, at a U.S. Department of Education staff conference where she shared her ongoing life experience as a deaf-blind person.

According to Mrs. Spear, the greatest need deaf-blind people have is to gain acceptance as unique individuals. The major obstacle is attitudinal. There is also a problem in finding necessary resources, such as interpreters skilled in tactile communication. While she is quick to give credit to others for her success, it is obvious that without self-determination, persistence and hard work she

She became the first deaf-blind person to be successfully trained to use a guide dog.

blind persons. The Optacon, Mowat Sensor and Braille Display Processor (used to access computers) have broadened employment options for blind persons and should do the same for qualified deaf-blind persons also. It has been noted elsewhere that Kathleen has proven herself to be an outstanding student. As the first totally deaf-blind person to earn a master's degree in California, and the only woman, she completed the course with a grade point average of 3.8. She has been an advocate and spokesperson for deaf-blind as a participant in the White House Conference on Handicapped Individuals in 1977; was appointed to HEW Region III Conference on Revision and Implementation of Section 504 in 1978; and was selected by the Governor of Pennsylvania to represent the state at the Helen Keller Centennial

would not be where she is today. It is her hope that other deaf-blind persons will be encouraged by her rise to a position which enables her to realize her potential. Equally important, she hopes the example she and other deaf-blind are setting as contributing members of society will serve to motivate employers in both the private and public sectors to think positively when considering deaf-blind job applicants.

Ms. Adler is Assistant Chief, Deafness and Communicative Disorders Branch, Rehabilitation Services Administration.

Author's Note: Mrs. Spear lent her considerable editing and writing skills toward the completion of this article.

PUBLICATIONS & FILMS

Diagnosis and Treatment of Global Aphasia. A volume in the College-Hill Press series, "Clinical Updates in Speech-Language Pathology. Michael Collins, Ph.D. College-Hill Press, 4284 41st Street, San Diego, California 92105. 186 pages. Soft cover, \$24.50.

This book describes a new approach to defining global aphasia and, as a result, new ways of viewing and managing these patients. Dr. Collins outlines his modified definition of global aphasia—a dynamic rather than a static concept—and describes specific empirically based diagnostic and treatment plans that help clinicians plan their time effectively with these patients.

Microcomputer Applications for Speech-Language Services in the Schools. Jana Sanders. College-Hill Press, Inc., 4284 41st Street, San Diego, California. 188 pages.

Through the use of a systems analysis tool, the data flow diagram, this book attempts to describe the speech-language pathologist role in terms of information flow and to determine major problem areas inherent in that role. Goals and objectives to solve the problems are then formulated. A variety of strategies to achieve the objectives are introduced. Manual, computerized and combination manual-computerized strategies are then presented. The book concludes with sample long-range plans to reach objectives, a sample microcomputer system for use in a school setting, and a discussion of the potential impact of systems analysis and microcomputers on speech-language pathology services.

The Future of Work for Disabled People: Employment and the New Technology. A compilation of papers presented at a May 1985 symposium of the same name and sponsored by the American Foundation for the Blind and the President's Committee on Employment of the Handicapped. Available in print or cassette for \$10 prepaid from the American Foundation for the Blind, 15 West 16th Street, New York, New York 10011.

Papers were presented by experts in a variety of disciplines, including education, rehabilitation, employment, research, and economics. This publication is divided into three sections—*The Work Content*, *The Changing Workplace*, and *The Future*—and addresses a wide range of issues.

Social Agency Policy: Analysis and Presentation for Community Practice. John P. Flynn, author. Nelson-Hall Publishers, 111 N. Canal St., Chicago, Illinois 60606. 313 pages. \$13.96, paperback.

This book provides theoretically based, practical models for the analysis and presentation of social policy in legislative, administrative, and interagency areas at the local, state and regional levels.

Behavioral Counseling in Medicine: Strategies for Modifying At-Risk Behavior. Michael L. Russell, author. Oxford University Press, 200 Madison Avenue, New York, New York 10016. 327 pages. \$29.95.

This book provides an introduction to the field of health-related behavioral counseling, showing clinicians

how to collaborate with patients in identifying and changing at-risk behavior and enhancing patients' overall physical and psychological well-being.

Unlocking Doors, a guide to effective communication. PACER Center, Inc., 4826 Chicago Avenue South, Minneapolis, Minnesota 55417. 64 pages. \$2.50.

This booklet explains the development of assertiveness behavior skills with accompanying activities centered in a parent/teacher/school context. Assertiveness is defined as a kind of behavior between aggression and passiveness, or as the skill to stand up for one's personal rights and to express thoughts in direct, honest and appropriate ways, while also showing respect for the rights and opinions of others.

Travel for the Disabled (A Handbook of Travel Resources and 500 Worldwide Access Guides). Helen Hecker. Twin Peaks Press, P.O. Box 8097, Portland, Oregon 97207. 192 pages. \$9.95 plus \$1.50 shipping.

Tranquillisers, Social, Psychological, and Clinical Perspectives. Edited by Jonathan Gabe and Paul Williams. Tavistock Publications, 11 New Fetter Lane, London, England EC4P 4EE in association with Methuen, Inc., 29 West 35th Street, New York, New York 10001. 311 pages. \$39.95, hardcover.

The material presented in this volume provides an essential basis for developing a multidisciplinary approach to the use of tranquilizers.

Program Issues in Developmental Disabilities, A Resource Manual for Surveyors and Reviewers. Edited by James F. Gardner, Ph.D., Linda Long, LCSW, Roann Nichols, and Diane M. Iagulli. 176 pages. \$16.95, paperback. A resource/training manual providing an overview of the needs and rights of persons with developmental disabilities. Provides information on federal regulations and guidelines. **Liability Issues in Community-Based Programs**, Legal Principles, Problem Areas, and Recommendations. Alan VanBiervliet, Ph.D., and Jan Sheldon-Wildgen, Ph.D., J.D. 222 pages. \$15.95, paperback. A practical guide for persons developing, operating or monitoring residential or day community-based programs for handicapped persons. Provides information and suggestions on how to meet the legal and ethical requirements of community-based services and how to identify potential problem areas in day-to-day operation. **Managing Physical Handicaps**, a Practical Guide for Parents, Care Providers and Educators. Beverly A. Fraser, R.P.T., and Robert N. Hensinger, M.D. 256 pages. \$19.95, hardcover. An illustrated problem solving guide to help in the day-to-day caring for and handling of students with physical handicaps. **Functional Assessment in Rehabilitation**. Edited by Andrew S. Halpern, Ph.D., and Marcus J. Fuhrer, Ph.D. 288 pages. \$23.95, hardcover. An interdisciplinary text that broadens and modernizes the definition of functional assessment. **Competitive Employment**, New Horizons for Severely Disabled Individuals. Paul Wehman, Ph.D. 278 pages. \$17.95, paperback. Provides vocational special-needs personnel, rehabilitation specialists and special education teachers with the techniques and procedures neces-

sary to move mentally and physically handicapped adolescents and young adults out of sheltered workshops and into competitive employment. **Pathways to Employment for Adults with Developmental Disabilities**. Edited by William E. Kiernan, Ph.D., and Jack A. Stark, Ph.D. 350 pages. \$35.95, hardcover. This text examines the status of competitive employment for persons with disabilities. All of the above available from: Brookes Publishing Co., P.O. Box 10624, Baltimore, Maryland 21285-0624.

The Transition to Work and Independence for Youth With Disabilities, a Report of the 10th Mary E. Switzer Memorial Seminar, May, 1986. Edited by Leonard G. Perlman and Gary F. Austin. Switzer Memorial Fund, (Monograph #10), National Rehabilitation Association, 633 South Washington Street, Alexandria, Virginia 22314. 136 pages. \$15.00.

This publication includes the latest in trends and models of transitional employment programs, families in the transition process, economic considerations, and other concepts associated with the rehabilitative process and youth in this critical period of life. Comments and recommendations of the 20 Switzer Scholars are found throughout the text.

Recipes for Fun. Let's Play To Grow, Suite 500, 1350 New York Avenue, N.W., Washington, D.C. 20005. \$8.50.

Designed for children with disabilities, this book is useful for children from birth to age eight. It includes directions for activities and games which will promote the development of the senses, physical abilities, language, creativity and imagi-

nation, socialization, and sense of self-worth. The book offers hundreds of illustrated instructions for traditional and unusual play activities for babies and young children with disabilities, instructions for making simple homemade toys, and ideas for adapting activities to various disabilities.

Created by the Joseph P. Kennedy, Jr., Foundation, Let's Play To Grow is a play and recreation program which serves thousands of families throughout the world through locally sponsored Let's Play To Grow Clubs, publications and special events.

Therapeutic Interventions for the Person with Dementia. Edited by Ellen Dunleavy Taira, OTR, MPH. The Haworth Press, Inc, 28 East 22 Street, New York, New York 10010. 143 pages. \$22.95, hardcover.

This book provides information on a variety of treatment interventions that are easily adaptable to the clinical setting. Topics explored include independent living, supportive services, guardianship, and less restrictive living situations.

Computer Technology and the Aged: Implications and Applications for Activity Programs. A monograph also published as the journal, *Activities, Adaptation & Aging*, Volume 8 No. 1, February 1986. Edited by Francis A. McGuire, Ph.D., Department of Parks, Recreation and Tourism Management, Clemson University, Clemson, South Carolina. The Haworth Press, Inc., 28 East 22 Street, New York, New York 10010. 119 pages. \$22.95.

This volume provides insights into the new computer technology and how it can be best utilized in activities

programs for elders. The book also outlines research related to the effectiveness of computers/video games in treatment and rehabilitation, reviews the latest hardware and software useful in activities programs, and describes the future applications of computers and their great potential in activity programs for the elderly.

The Sourcebook of Patient Education Materials for Physical Medicine and Rehabilitation. Edited by Sandra J. Koch, M.D. The Center for Disability and Rehabilitation (CEDAR), P.O. Box 129, Lawton, Oklahoma 73502. 741 pages. \$17.95.

This publication consists of source materials gathered nationally for this first volume of what CEDAR hopes will become a standard reference book for professionals and patients in the field of physical medicine and rehabilitation.

Equal Employment Opportunities and Affirmative Action. A Sourcebook. Floyd Weatherspoon. Garland Publishing, Inc. 126 Madison Avenue, New York, New York 10016. 437 pages. Hardcover, \$55.00.

This book is a comprehensive bibliography of publications written on EEO and affirmative action between 1964 and 1984. One chapter provides a selective compilation of publications on the Vocational Rehabilitation Act of 1973 and handicap discrimination.

More than 1,000 entries are included and topics covered include the Civil Rights Act of 1964, the Equal Pay Act, Executive Order 11246, the Rehabilitation Act, selection and testing, sexual harassment, and discrimination by religion, race, national origin, and sex.

Leisure in Later Life. A sourcebook for the Provision of Recreational Services for Elders. Edited by Michael J. Leitner, Ph.D., and Sara F. Leitner. The Haworth Press, Inc., 28 East 22 Street, New York, New York 10010. 341 Pages. Hardcover, \$34.95; softcover, \$29.95.

This book is a comprehensive text on the provision of recreation services for elders; it presents theoretical material and practical applications that should benefit a wide variety of professionals, students and volunteers. It examines the foundations of recreation services for elders, details recreation leadership principles, describes the skills needed for program planning and evaluation, and looks at a variety of settings where these services can be provided, noting specific needs for each setting. A myriad of activities are described in detail, and special issues such as sexuality in later life are focused on as well.

We Can Do It. International Association of Machinists and Aerospace Workers, 1300 Connecticut Avenue, N.W., Washington, D.C. 20036. 28-minute film. One-half and three-quarter inch VHS tapes are available on free loan or can be purchased for \$25.00 by contacting: Charles E. Bradford, Executive Director, IAM CARES, (202) 857-5173.

This movie tells the story of five workers who have conquered diverse physical and mental handicaps and found careers through the Projects With Industry program.

Biobehavioral Measures of Dyslexia. Edited by David B. Gray and James F. Kavanagh. York Press, Inc., 2712 Mt. Carmel Road, Parkton, Maryland 21120. 328 pages. \$31.50.

This is the ninth volume in a series entitled "Communication by Language." This book covers many important physiological and psychological aspects of dyslexia. Topics include electrophysiology, neurology, genetics, subtyping, memory, eye movements, linguistics, testing, and related disorders. Designed for the researcher in biology and behavior, the book is also of general interest to teachers and clinicians who want to know more about the processes and problems of reading.

What Do You Do When You See a Blind Person? Publications and Information Services, American Foundation for the Blind, 15 West 16 Street, New York, New York 10011. Single copies are free.

This pamphlet is designed to help both sighted and blind persons feel at ease and provides helpful tips to sighted persons on how best to understand and communicate with blind persons.

The Hurt That Does Not Show. A supplement to the series on hearing conservation for public television. Grace Foundation, Inc., 1114 Avenue of the Americas, New York, New York 10036. Address inquires to: Hearing Booklets, SHHH, 7800 Wisconsin Avenue, Bethesda, Maryland 20814.

This six-booklet set is part of a national community outreach project that has been in development since 1980 and is intended to provide basic information on hearing loss, hearing conservation and the dangers of noise. In addition to the booklets, four 20-minute videocassette programs will be marketed to libraries, schools, health centers, and hearing organizations.

REPORT RESOURCES

HANDICAPPED FUNDING DIRECTORY, 1986-87 edition. Research Grant Guides, P.O. Box 10726, Marina del Rey, California 90295. \$23.50, plus \$2.00 for postage and handling.

This publication contains funding information on more than 700 corporations, foundations, government agencies, and associations that fund programs and services for the handicapped. In addition, the directory includes important guidelines on how to obtain a grant, addresses of state agencies and their directors, and a bibliography of grant funding publications.

NEW PRODUCTS FROM ANN MORRIS ENTERPRISES, INC. Free cassette or print catalog. Write in print or braille to Ann Morris Enterprises, Inc., 26 Horseshoe Lane, Levittown, New York 11756.

Catalog features a beeper locator, large digit air thermometer, divided skillet, push button combination pad lock, shower liner with pockets for toiletries, and more.

INFORMATION ON POST-SECONDARY STUDENT FINANCIAL AID FOR VISUALLY IMPAIRED STUDENTS. Free. Cassette, U.S. Department of Education, Office of Student Financial Assistance, 400 Maryland Avenue, S.W., Washington, D.C. 20202.

THE GUIDE TO BASIC SKILLS JOBS; VOL. I. RPM Press, Inc., Dept. N., P.O. Box 157, South Farwell St., Verndale, MN 56481. Telephone: (218) 445-5900. 240 pages. \$32.50.

This handbook zeroes in on nearly 5,000 basic skills jobs suited for many handicapped and entry level or unskilled workers and is designed to provide counselors with an easy to use, comprehensive tool to expand job opportunities available to basic skills workers.

A CATALOG OF CAPTIONED EDUCATIONAL VIDEOTAPES and THE CATALOG OF EDUCATIONAL PRINT MATERIALS, Rochester Institute of Technology, the National Technical Institute for the Deaf, Division of Public Affairs, Dept. V, One Lomb Memorial Drive, P.O. Box 9887, Rochester, New York 14623-0887. Both catalogs are free.

YES I CAN . . . WORK WITH PEOPLE! RPM, Inc., Dept. N, 223½ N. Jefferson, Wadena, MN 56482. Telephone: (218) 631-4707. \$88.50, plus \$4.50 shipping and handling.

This audiovisual training program for severely handicapped persons is designed to provide rehabilitation facility personnel and special educators with a systematic 12-hour course for teaching handicapped workers essential human relations skills necessary for successful employment in any type of work.

READINGS: A JOURNAL OF REVIEWS AND COMMENTARY IN MENTAL HEALTH. Ernest Herman, editor. Dept. P, 49 Sheridan Avenue, Albany, New York 12210. Quarterly publication of the American Orthopsychiatric Association, Inc. Charter subscription rate: individuals,

\$17.50; libraries/institutions, \$25.00. Regular rate: individuals, \$25.00; libraries/institutions, \$35.00.

This journal, which began publication in March, focuses exclusively on book reviews and features essay-reviews by leaders in the behavioral sciences.

1986 ACCESSIBLE TOURS FOR TRAVELERS WITH SPECIAL NEEDS. Whole Person Tours 1986 Catalog, P.O. Box 1084, Bayonne, New Jersey 07002-1084. \$1.00 (postage and handling).

This catalog features 20 fully-accessible vacations for travelers with physical disabilities and other special needs.

MENTOR PROJECT: INVOLVING HANDICAPPED EMPLOYEES IN THE TRANSITION OF HANDICAPPED YOUTH FROM SCHOOL TO WORK. FINAL REPORT. S.L. Patton. Harold Russell Associates. 47 pages. Available from the National Rehabilitation Information Center (NARIC), 4407 Eighth Street, N.E., Washington, D.C. 20017. There is no charge for photocopying.

This is a feasibility study regarding industry volunteerism in developing mentor programs for disabled secondary students using handicapped industry employees. This report discusses vocational programming in Massachusetts, problems in the area of work transition to be considered for research, technical objectives, study methods and activities, school needs assessment, industry interviews, service provider interviews, and development of a mentor model.

DEVELOPMENT AND EVALUATION OF A PSYCHODYNAMIC REHABILITATION SERVICE SUPPORT SYSTEM MODEL TO MAINTAIN JOB PLACEMENT OF THE EX-MENTALLY ILL: FINAL REPORT. H. Sands. Postgraduate Center for Mental Health, New York. 179 pages. Available from the National Rehabilitation Information Center (NARIC), 4407 Eighth Street, N.E., Washington, D.C. 20017. There is no charge for photocopying.

This report reviews the history, literature, regulations, and mandates related to post-employment services and describes methods to develop and evaluate a psychosocial support system to help ex-mentally ill clients classified as having a severe mental disability maintain their jobs after being placed by the vocational rehabilitation agency.

SPECIAL RECREATION DIGEST. John A. Nesbitt, editor/publisher. 362 Koser Avenue, Iowa City, Iowa 52240. Annual subscription, \$28.00.

This publication is a comprehensive source of recreation news and information for the professional working with people who are disabled.

HANDBOOK FOR MANAGEMENT OF HUMAN SERVICE AGENCIES. T.F. Riggat and R.E. Matkin. Southern Illinois University Press, P.O. Box 3697, Carbondale, Illinois 62901. 188 pages. \$14.94.

This publication is a basic guide for persons responsible for developing and/or operating comprehensive or specialized human service programs. The text is organized into 23 sections that describe tasks ranging from constructing mission statements and

admission criteria to developing start-up budgets and allocating space for both direct and indirect services.

MODIFYING THE WORKSITE TO ENHANCE EMPLOYABILITY: FINAL REPORT: ANNUAL REPORT, FEBRUARY 1, 1984—JANUARY 31, 1985. J. F. Jonas, J. H. Leslie, and R. H. Norris. Wichita State University and Cerebral Palsy Research Foundation of Kansas Rehabilitation Engineering Center. 169 pages. Available from the National Rehabilitation Information Center (NARIC), 4407 Eighth Street, N.E., Washington, D.C. 20017. There is no charge for photocopying.

Summary of 13 projects of the Wichita Rehabilitation Engineering Center related to standards and assessment indicators for the worksite, worksite modifications to enhance employability, and independent living skills to enhance employability. This report presents an overview of the center and describes key personnel, methodology, recommendations, and research utilization plans for each project summary.

FISCAL 1984 FINANCIAL INFORMATION. VOLUNTARY HEALTH AGENCY MEMBERS OF THE NATIONAL HEALTH COUNCIL. National Health Council, 622 Third Avenue, New York, New York 10017-6765. 7 pages.

The information in this report is extracted from this most recent publicly available financial statements published by each member voluntary health agency, following functional accounting and reporting requirements as specified by the National Health Council and the American Institute of Certified Public accountants.

DIABETES, VISION IMPAIRMENT, AND BLINDNESS. Allene R. Van Sloan, R.N. Publication and Information Services, American Foundation for the Blind, 15 West 16 Street, New York, New York 10011. 27 pages. Free.

This pamphlet explains the relationship between vision impairment and diabetes and describes recent advances in treatment and rehabilitation.

PRODUCTS FOR PEOPLE WITH VISION PROBLEMS, 1986-87 edition. Available free of charge in print or braille from: Consumer Products, American Foundation for the Blind, 15 West 16th Street, New York, New York 10011, or call AFB's toll free hotline, 800-AFBLIND (232-5463).

More than 350 household, business, recreational, and health care products designed to improve the lives of blind and visually impaired people are described in this catalog.

COUNSELING MENTALLY RETARDED ADULTS, a Procedures and Training Manual. Dr. Larry Jageman and Dr. Jane E. Meyers. Materials Development Center, School of Education and Human Services, University of Wisconsin-Stout, Menomonie, Wisconsin 54751. 160 pages. \$17.75.

The manual provides a knowledge base for counseling mentally retarded adults and provides skill exercises throughout to facilitate proper application of this knowledge.

ORIENTATION AND MOBILITY FOR LOW VISION PERSONS: FINAL REPORTS (2 volumes). L.A. Edwards et al. Pennsylvania College of Optometry and Vanderbilt University, George Peabody College. 423 pages. 1985. Available from the

National Rehabilitation Information Center (NARIC), 4407 Eighth Street, N.E., Washington, D.C. 20017. There is no charge for photocopying.

These reports discuss the need to address mobility problems of legally blind persons with residual vision. They emphasize the maximal use of residual vision rather than training low vision persons as if they were totally blind. The reports also discuss research projects related to low vision aids, spatial orientation, mobility hazards, traditional mobility training, relaxation training, and illumination controls in order to develop a theory of mobility for low vision pedestrians.

VIRGINIA MODEL REGIONAL CENTER SYSTEM FOR SPINAL CORD INJURY REHABILITATION: FINAL REPORT, APRIL 11, 1985. W.G. Stamp et al. Virginia Department of Rehabilitative Services. 138 pages. Available from the National Rehabilitation Information Center (NARIC), 4407 Eighth Street, N.E., Washington, D.C. 20017. There is no charge for photocopying.

This report summarizes major research findings of a model program for a comprehensive system of management for adults with traumatic spinal cord injury. It describes the programs and facilities at the University of Virginia Medical Center, the Woodrow Wilson Rehabilitation Center and the Virginia Department of Rehabilitative Services.

REHABILITATION ENGINEERING CENTER FOR THE DEAF AND HEARING IMPAIRED: FINAL REPORT: OCTOBER 1985. J. M. PICKETT. Gallaudet College Rehabilitation Engineering Center

for the Deaf and Hearing Impaired. 326 pages. Available from the National Rehabilitation Information Center (NARIC), 4407 Eighth Street, N.E., Washington, D.C. 20017. There is no charge for photocopying.

This report reviews the present (1985) state of technologies in the field of communication for hearing impaired persons. It describes difficulties in speech communication experienced by various segments of the hearing impaired population.

EQUAL TO THE CHALLENGE: PERSPECTIVES, PROBLEMS, AND STRATEGIES IN THE REHABILITATION OF NON-WHITE DISABLED. Edited by Sylvia Walker et al. Bureau of Educational Research, School of Education, Howard University. Washington, D.C.

This publication is a report of the proceedings of a national conference held in 1984 at Howard University as an activity of the National Institute of Handicapped Research supported research grant focusing on the needs of nonwhite disabled persons.

Copies of the document are available from Dr. L. Deno Reed, Room 3426 Switzer, 330 C Street S.W., Washington, D.C. 20202. Telephone: (202) 732-1193.

VOCATIONAL TRAINING CURRICULUMS FOR SEVERELY DISABLED WORKERS: VOLUME II. RPM, Inc., Dept. N, South Farwell Street, P.O. Box 157, Verndale, MN 56481. 200 pages. \$15.95 (plus \$1.55 shipping and handling). Free catalog available on request.

This book is designed to provide rehabilitation facility personnel and special educators with a collection of

ready to use job training curriculums for disabled adults and secondary level school students. It is the latest addition to RPM's Curriculum Clearinghouse Series—a collection of field tested vocational training curriculums adapted for special needs individuals.

This book includes five complete curriculums: "Motel Service Work," "Dishwasher Training," "Basic Hand Tools," "Lawn Care," and "Basic Painting." Each curriculum describes individual major job activities as well as clusters of specific job tasks and instructional techniques.

COMPUTER TECHNOLOGY FOR THE HANDICAPPED IN SPECIAL EDUCATION AND REHABILITATION: A RESOURCE GUIDE. Volume II. ICCE, 1787 Agate Street, University of Oregon, Eugene, Oregon 97403-1923. \$10.00. (\$15.00 for volumes I and II).

VOCATIONAL REHABILITATION OF INDIVIDUALS WITH EMPLOYABILITY SKILL DEFICITS: PROBLEMS AND RECOMMENDATIONS. Richard Roessler and Brian Bolton. \$3.00. Arkansas Research and Training Center in Vocational Rehabilitation, Publications Department, P.O. Box 1358, Hot Springs, Arkansas 71902.

HANDI-TRAVEL: A RESOURCE BOOK FOR DISABLED AND ELDERLY TRAVELERS \$9.95 (Canadian) CRCD, One Yonge Street, Ste 2110, Toronto, Ontario, Canada M5E 1E5.

INFLUENTIAL BOOKS ON EMPLOYMENT AND DEVELOPMENT. International Labor Office, Washington Branch, 1750 New York Avenue, N.W., Washington, DC 20006.

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Bartels Receives Two Awards

Massachusetts Rehabilitation Commission (MRC) Commissioner Elmer Bartels recently received two awards in recognition of his contributions to the development of improved rehabilitation programs.

The National Head Injury Foundation presented its Distinguished Service Award to Commissioner Bartels "for his role in developing and fostering training programs and services that are designed to assist the survivors of traumatic brain injury in their efforts to attain their optimum level of function and thereby improving the quality of their lives."

The Massachusetts Chapter of the National Rehabilitation Association honored him "in recognition of and appreciation for devoted and exceptional service which has contributed significantly to the advancement of rehabilitation of handicapped people."

Job Placement in Wisconsin

A cooperative project between Wisconsin's Division of Vocational Rehabilitation (DVR) and the University of Wisconsin-Whitewater seeks to improve job placement rates of graduates with physical disabilities.

The project uses work experience, career planning and placement seminars, and the development of skill necessary to work and live independently in the community.

The university is contributing newly remodeled space to house the project, an independent living program center, and a resource library seminar room; secretarial support; \$15,000 in on-campus student funding; and ongoing supervision.

Norm Hanson, a 15-year rehabilitation counselor and placement specialist with DVR, is project director.

Project emphasis is on working with recent severely disabled graduates, seniors and incoming freshmen. Last January, project efforts began to include outreach to juniors and sophomores.

The Disabled Student Services program at Whitewater was started during the 1970-71 school year with a three-year innovation and expansion grant from RSA. DVR continued to support the program during the 1973-75 biennium with a group purchase of service arrangement. DVR supported the establishment of the physical therapy center, a wheelchair recreation and athletic program, wheelchair repair facilities, and the accessibility of the building housing Disabled Student Services.

Since 1973, the State Legislature and the State Building Commission have added support. Nearly \$2 million went to make programs and facilities accessible.

The university's total budget in support of programs and services for

students with disabilities places the campus in the top five campuses nationally.

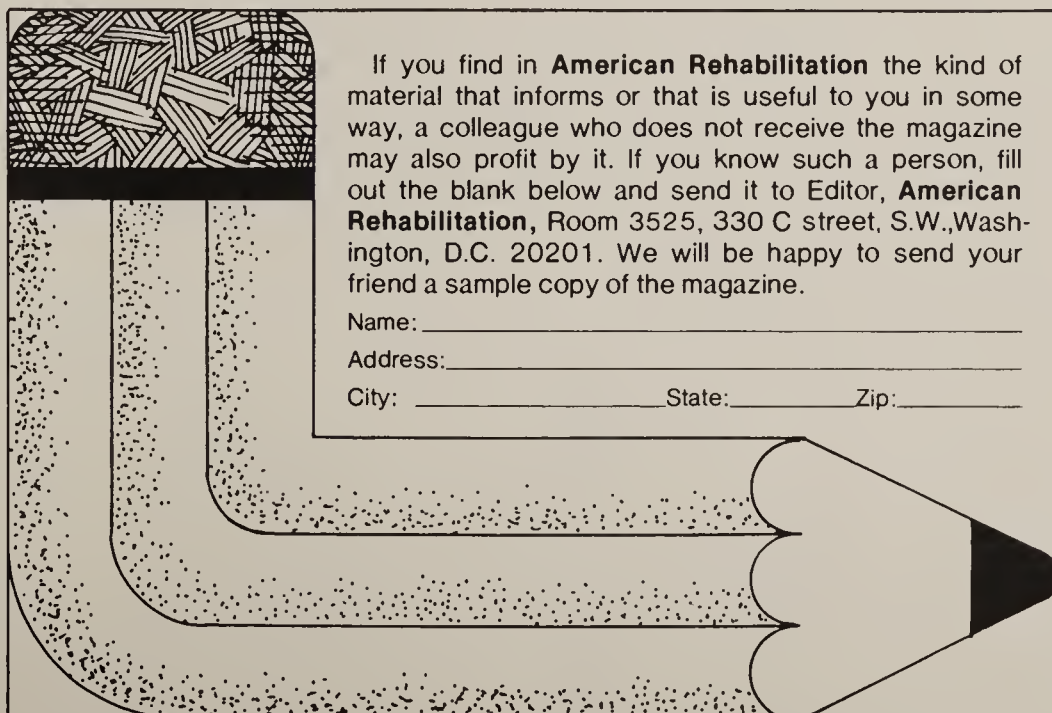
Students for an Accessible Society, a student organization concerned with issues facing persons with disabilities, is in its fifteenth year.

MRC Opens New DDS Office

As many as 16,000 disabled residents of central and western Massachusetts will be helped this year by the new Massachusetts Rehabilitation (MRC) Disability Determination Services (DDS) office in downtown Worcester.

The disability determination function, a state-run program, is funded and structured via regulations of the Social Security Administration.

The move was a result of a study of cost-effective system changes within DDS leading to better services. DDS determines eligibility for Social Security Disability Income and Supplemental Security Income, the payment benefits programs for people with disability claims.



If you find in **American Rehabilitation** the kind of material that informs or that is useful to you in some way, a colleague who does not receive the magazine may also profit by it. If you know such a person, fill out the blank below and send it to Editor, **American Rehabilitation**, Room 3525, 330 C street, S.W., Washington, D.C. 20201. We will be happy to send your friend a sample copy of the magazine.

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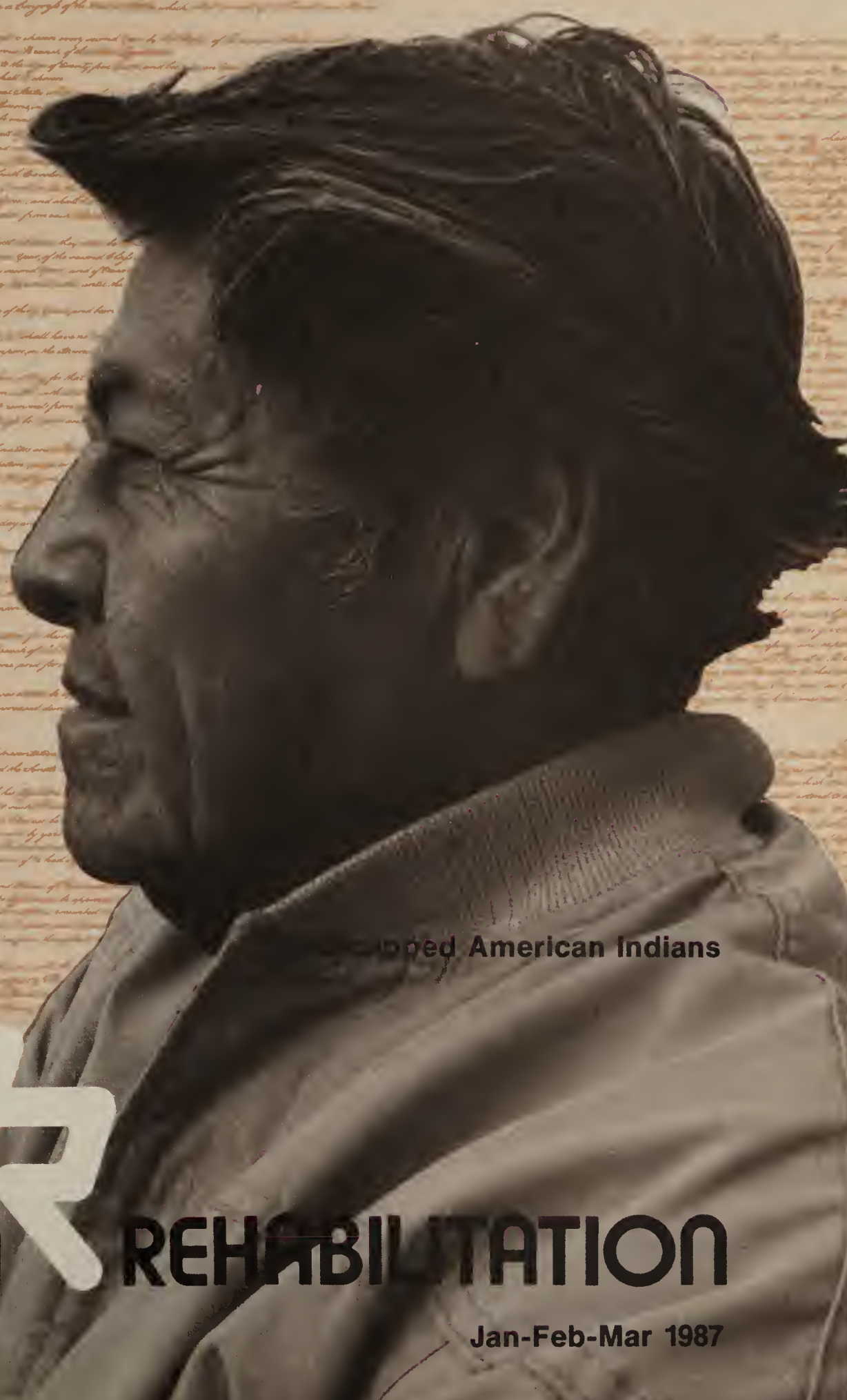
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We the People of the United States, in order to form a more perfect Union, establish Justice, insure domestic Tranquility, provide for the common defence, promote the general Welfare, and secure our Liberties, do ordain and establish this Constitution for the United States of America.

Article I

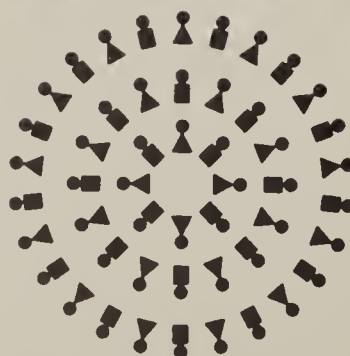


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Jan-Feb-Mar 1987

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AMERICAN REHABILITATION

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Larks and Wounded Eagles

A Commentary on Services to Native Americans with Disabilities

Jamil I. Toubbeh, Ph.D

When we approach the difficult issues surrounding habilitation and rehabilitation, we are often faced with the prejudices of our own cultures, languages, professions, bureaucracies, personal values, and the prejudices of our own class. Physicians, examining ears of children, look for disease. Audiologists look for hearing impairments. Special educators try to determine the potential effects of impairments on cognition and learning. Parents first have to cope with their own guilt, then with the long-term effect of the impairment on their child's life adjustment. With the exception of parents, each professional perceives the impairment within the context of his/her own prejudices or, more precisely, limitations.

Bureaucracies, public or private, are exaltations of larks with unique cultures, languages, behaviors, values, and flight patterns. As examples, we have the Rehabilitation Services Administration (RSA), Office of Special Education Programs (OSEP), Bureau of Indian Affairs (BIA), and Indian Health Services (IHS). Each "exaltation" has its own unique plan to structure or restructure the world in its own cultural-linguistic image and its value system: RSA focuses on rehabilitation for employment; OSEP on improvement of the child's potential to learn; IHS on primary care; and so on. These plans are honorable

and may be considered valued commitments. But bureaucracies, like societies, carry guns and ammunition, initiate wars against each other, and win and lose battles. They carry out mandates, but more often than not, behave like central nervous systems: they inhibit rather than facilitate. They do so under the guise of the law or regulations or budgetary and human constraints. Citizenship and rights are often swept under the carpet, with elegance of bureaucratic jargon. Here are a few responses to Indian needs that shed light on these cultural "exaltations:"

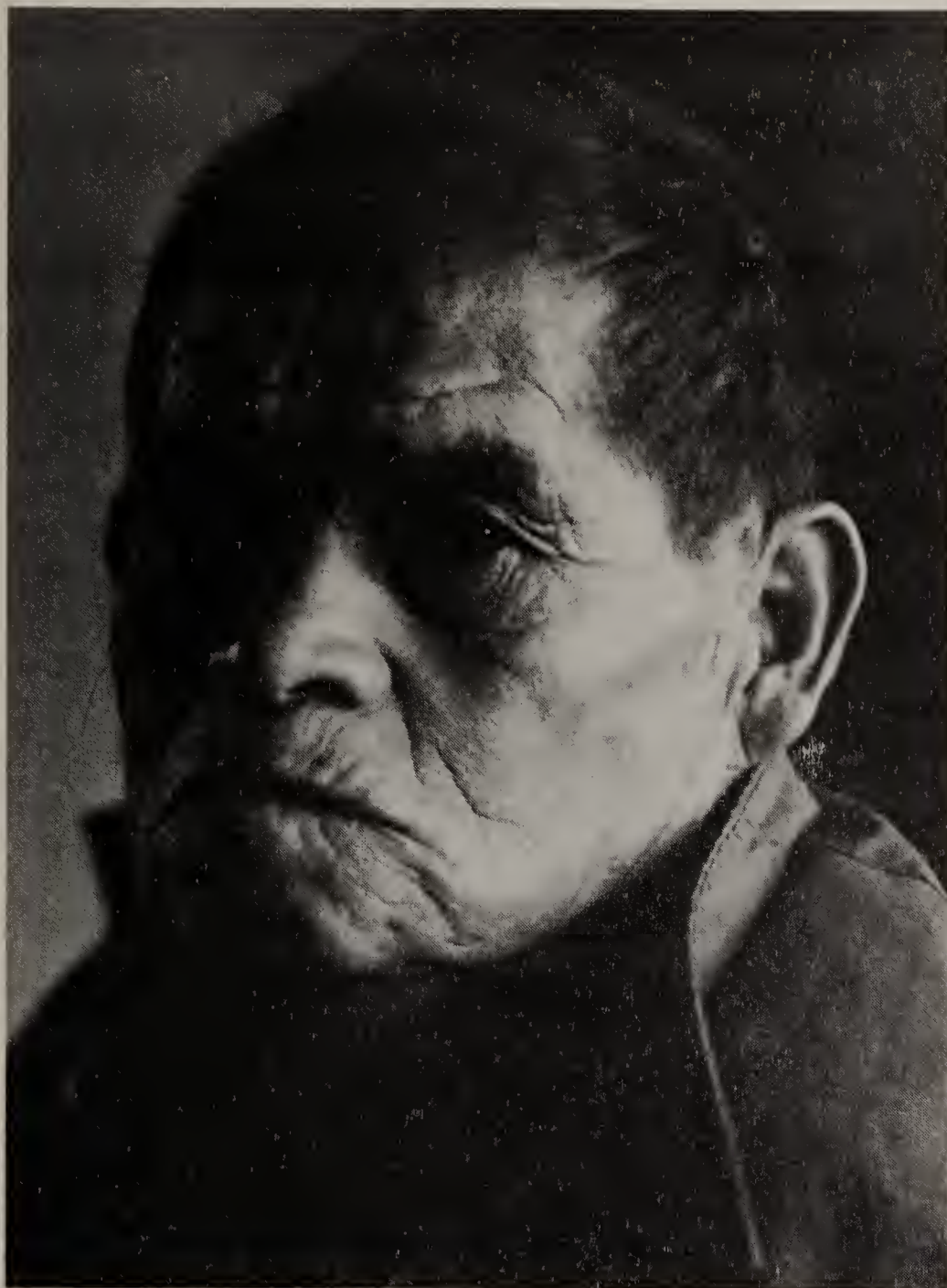
- "Reservation Indians are not in the mainstream of American society."
- "It is the IHS' or BIA's responsibility."
- "We'll cooperate if you can come up with a match."
- "It comes under the jurisdiction of...!"

In this maze of bureaucracies and bureaucratic machinations, there are two sets of actors, both of whom are in the firing line and blindfolded: the handicapped and the parents or families of the handicapped. Both seek an answer to the simple question: "How can I, or we, get the best service, regardless of provider." In bureaucracies, a straight answer is nearly impossible. Indian parents learn that when they carry their spinal cord or head injured, 14-year-old child to the doorstep of a hospital. What hap-

pens to the child, the patient, and to them becomes the basis of a best seller titled, *My Eagle Is Wounded: The Larks Flew By*.

Bureaucracies thrive on problems, particularly those that engender more complex problems. Ordinary people, and Indians are certainly ordinary people, prefer simple solutions. They rarely get interested in the workings of bureaucracies. When faced with a handicapping condition, they have their own perspective of what can or should be done with handicapping conditions. They define their own goals and processes, based on their inherent trust in professionals and bureaucracies, because, in their own minds, these professionals and support systems are supposed to help rather than hinder people. Ordinary people especially deplore obstacles that stand in the way of human potential and happiness.

Recently, in a report to the President and the Congress entitled *Toward Independence*, the National Council on the Handicapped noted that: "complexities, inconsistencies, and fragmentation in the various laws and programs that affect Americans with disabilities might suggest that the United States has no coherent Federal policy on disability...; [It has]. Confusion and inconsistency have resulted, not from lack of consensus about the goal, but from the



historical and continuing failure to structure and administer some Federal laws and programs in such a way as to reflect and further the national goal." The report continues: while the "nation's goal regarding citizens with disabilities may be clear and meritorious. . . , Federal programs and laws that should serve as paths toward this goal have often deviated or even retreated from it. . . ."

Perspectives on Comprehensive Care: A Definition

Let's consider how, in the face of a handicapping condition, ordinary people might perceive a viable health, habilitation and rehabilitation delivery system and, as we examine these perceptions, let us compare current services with these perceptions, then try to derive questions whose answers might fill gaps in knowledge,

thus, I would hope, ameliorating certain needs. Let me, a bureaucrat, remove myself from the "exaltation" and become the ordinary person, an ordinary Indian. In the face of a handicapping condition, my perceptions of the system would be as follows:

First, I would perceive that system as one that has the potential of providing a broad range of services based on demands and needs of a particular population within a prescribed geographic environment. Second, I would perceive it as a system that provides comprehensive and continuous services to its clients, as one that is responsive to the needs of the person from birth to death, and as one that has the capacity to ensure that diseases or disabling conditions minimally impede the person's optimal social, psychological, educational, vocational, and avocational development. Third, I would perceive it as a system that takes into consideration the totality of demands and needs of the person, ensuring family integrity, income maintenance, and the quality of services it renders. And fourth, I would perceive it as a dynamic system, under constant scrutiny, and responsive to changes in the lives of people.

Examining delivery systems, however, I find that my perceptions are, unfortunately, wrong. They are ideals. The state-of-the-art in comprehensive care for the handicapped is not consonant with the national goal. For me, an Indian, the situation is untenable. While I might accept the fact that systems that serve the larger population may have serious gaps, I cannot accept the fact that because I am not in the mainstream of American life, the gap between me and services should be an abyss. I decide to compare my perceptions with the state-of-the-art in com-

prehensive services. This is what I find:

1) The goals and missions of federal agencies are not fully appreciated and implemented at local levels;

2) Responsible federal, regional, state and local agencies may be operating inconsistently with Departmental policies and directives or Congressional intent under various legislative mandates;

3) Effective planning at regional, state, tribal and community levels is difficult to achieve because of the insularity of the delivery systems and the lack of the necessary tools through which health, habilitation and rehabilitation personnel can effect comprehensive programs;

4) Current efforts in the realm of interagency cooperation to ensure continuity and comprehensiveness in services to my people are limited and, to a large extent, ineffectual in meeting the dynamic demands and needs of Indian populations;

5) Indian populations are not receiving the full range of services to which they are entitled as citizens because of jurisdictional and other barriers; and,

6) Human and financial resources are not adequately used to achieve the greatest possible impact on the Indian populations, particularly those segments in critical need.

A comparison between the status of Indian needs and response to these needs a decade ago and today indicates slow progress on many fronts. Here are a few comments on this subject derived from the proceedings of the Second National Indian/Alaska Native Health Conference, held in Albuquerque, New Mexico, 8 years ago:

"... Our studies within the Department (then, Health, Education, and Welfare, or HEW) ... have shown that there are 211 programs in the

A comparison between the status of Indian needs and response to these needs a decade ago and today indicates slow progress on many fronts.

Department ... [139 of which could serve the Indian populations]. And yet, when we looked into these programs more carefully, we found that only 48 ... were being used, and only 12 of them were being utilized by more than one tribe. ... Probably no group within the country is ... less informed ... than the Indian community.

"It is common fact that one of the major problems in delivering services [to Indians] is that different agencies and programs either have the same responsibility or very similar and related responsibilities. And oftentimes, the interrelationships of these things get confused and delivery of services falls between the cracks.

"Most decision-makers in [the Department] do not have [information on the current status of Indian needs, the special relationship between Indians and the Federal Government and Indian self-determination and its implications] ... *And yet, these people have to make decisions about [Indian] lives without the basic information about [their] special needs* (emphasis author)."

In 1978, the HEW budget was \$160 billion. Today, the National Council on the Handicapped identifies over \$60 billion of the nation's annual budget as going to disability benefits and programs. As an ordinary Indian, I am forced to ask two ordinary questions: Do all these inadequacies in the delivery systems and bureaucracies justify diminution or absence of services to handicapped Indians? What is the share of the handicapped Indian in this mind-boggling amount of money?

Status of Indian Populations: A Review

A strategy focused on the needs of handicapped Indians must be based on their dynamics and status. Failure to recognize these might easily lead to the development of a plan that is responsive more to the needs of homogeneous rather than heterogeneous populations, and populations that present analogous problems, whether these are related to disease patterns, handicapping conditions, cultural-linguistic barriers, or political forces.

Culture and Planning. It is an undeniable fact that the so-called "Indian population" in the U.S. is made up of unique cultures (or societies), each with its own history, geography, language or dialect, beliefs, and demography. According to the Office of Technology Assessment's report, *Indian Health Care* (1986), "no single variable or socioeconomic indicator encompasses the diverse characteristics of Indians and Alaska Natives." While it is not my intention to discuss in detail the dynamics of Indian populations, a few generalizations borrowed from cultural anthropologists are in order.

Culture, or the sum total of behavior of a particular society, isolates and exposes humans to disease and disabling conditions. It governs the types and frequencies of these conditions, the way people explain and treat them, and the manner in which individual members of societies respond to their treatment. As diverse cultures, Indians present these cultural attributes. Even proximal



Indian societies show unique and surprising dissimilarities. Cases in point are middle ear disease and diabetes, where variability can be as great as 20 percent and 30 percent or more, respectively.

Cultures, fortunately or otherwise, include knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by people as members of specific societies. Indians today are governed not only by their own cultures, but by those of the majority and minority populations, a fact that must be weighed against actions considered by policy makers, planners, researchers, or service providers. As a primer to planning and intervention,

sensitivity to those cultural axioms is mandatory.

Indian Populations. The sources of information on Indian populations are the Bureau of the Census, the BIA and the IHS. In addition, Indian tribes and communities have their own information base on their specific populations.

In 1980, the Census identified 278 reservations and 209 Alaska villages. It counted 1.4 million Indians, Eskimos and Aleuts. During the same year, the Census identified 22 percent of the populations as residents of central cities, 32 percent as residents of urban areas and the remainder as residents of nonmetropolitan areas. Of all Indians counted, 37 percent

lived inside identified Indian areas. Ten reservations accounted for 49 percent of all reservation residents, and four states (California, Oklahoma, Arizona, and New Mexico) each with more than 100,000 Indians.

Indians are poor. Many may be considered destitute. As a matter of statistic, 27.5 percent have incomes below the poverty level, compared with 12.4 percent for the population at large. In 1980, 23 percent of Indian families (slightly higher on reservations) were headed by women, compared with 14 percent in the population.

Unemployment mirrors poverty and may be, to some degree, related to single parent families. The unemployment rate is more than twice that in the population; among certain tribes, it is much higher. Indian populations are relatively young. The median age for 1980 was 23.4, ranging between 19.7 for reservation Indians and 24.5 for Aleuts. This compares with 30 for the total U.S. population.

Indians' mobility, whether within inner cities, urban areas or away from reservations, is high. Almost 66 percent lived off reservations in 1980. Of the estimated 1.4 million Indians, 54 percent lived in metropolitan areas. Ten percent lived proximal to reservations or Indian lands.

The importance of understanding the dynamics of Indian populations and their status cannot be overemphasized in planning for the handicapped Native American. Indian societies are undergoing constant and perhaps more rapid changes than other segments of the larger population. Sensitivity to these changes must be reflected in any approach we may adopt for serving handicapped Indians. Let me cite two examples: the first focuses on

(Continued on page 24.)

Challenges and Choices

The Changing Nature of the Randolph-Sheppard Program

Chester P. Avery

After 50 years of the Randolph-Sheppard program, it is fitting for those of us interested in business employment opportunities for blind and visually impaired persons to assess where we are, how far we have come, and where we are going. The responsibilities, rights, opportunities, and incomes of licensed blind vendors have radically changed from those that existed before that bright day, June 20, 1936, when young Congressman Jennings Randolph joined Franklin Delano Roosevelt to sign P.L. 74-752, the Randolph-Sheppard Vending Stand Act.

With the purpose of providing blind persons "with remunerative employment, enlarging the economic opportunities of the blind, and stimulating the blind to greater efforts in striving to make themselves self-supporting," the Randolph-Sheppard program sought to create small business opportunities by establishing the authority for business activities on federal property where customers were members of the public conducting business with the Federal Government and federal employees. The vending stand (which sold newspapers, magazines, candy, tobacco products, and sundries) was commonplace in post offices and federal buildings in the 30's, 40's and 50's.

6 These facilities have given way to

larger businesses, such as snack bars and cafeterias where blind people supervise complex activities and receive lucrative incomes. Today, almost 3,700 blind business operators provide goods and services to an estimated one million customers a day. With sales totaling \$350 million per year, the program has joined the nation's top 50 largest food service providers.

Even though the Randolph-Sheppard program has grown dramatically since the depression, the unemployment rate for blind persons is still extraordinarily high.

An article in the July-August 1986 issue of the *Braille Forum* indicates that "76 percent of all working age blind and visually impaired persons are unemployed. Half of the remaining 24 percent . . . are underemployed." The article, *Accommodation of Disabled People Into Employment: Perceptions of Employers* by Ira H. Combs and Clayton Omvig, from the *Journal of Rehabilitation*, Spring, 1986, based upon a survey of 300 employers classified by size of business, finds that next to severely retarded persons, blind persons among 16 types of disabled persons are perceived to be the most difficult to accommodate in employment. Now as never before there is a need to support private and public employ-

ment programs that enable blind persons to become financially productive members of society.

Program Description

The Randolph-Sheppard program considers the interests of four constituencies: The state vocational rehabilitation agency, which, as the state licensing agency, recruits, trains, licenses, and places blind persons in business; the blind operator; the federal or other property managers who house the business and have mutual responsibilities outlined in a permit or contract; and the customer. With this framework in mind, the major program provisions are:

- Blind vendors have a priority (not just a preference) in operating vending facilities and in being awarded contracts for cafeterias on federal property.

- Every new or renovated federal property which meets certain size requirements must, where feasible, have one or more of these vending facilities.

- A formula added in 1974 requires the assignment of 30 to 100 percent of vending machine income on federal property to blind vendors and/or state licensing agencies for the benefit of vendors, with certain exceptions.

- The U.S. Department of Education is charged with carrying out the



Secretary's regulations governing the program. The Secretary is responsible for determining whether or not a limitation on the placement or operation of a vending facility is adverse to the interest of the United States.

- The RSA Commissioner is responsible to adopt regulations and standards for the uniform application of the law by each state licensing agency, including appropriate accounting procedures, policies on the selection and establishment of new vending facilities, distribution of income to blind vendors, and the use and control of set-aside funds.

- Each state agency must give licensed blind vendors access to financial data on the program and help

develop and sustain a state "Committee of Blind Vendors," which participates in major state administrative decisions and program and policy development.

- Funds required to be set aside from the net proceeds of blind vending facilities and vending machine income from vending machines not operated by blind vendors may be used for fringe benefits (*i.e.*, retirement, health insurance payments, and paid sick leave and vacation time for blind vendors), maintenance and replacement of equipment, purchase of new equipment, management services, and assuring fair minimum return to operators.

- Job training, upward mobility and

post-employment services must be provided for blind licensees.

- Blind vendors have at their disposal administrative and judicial remedies to insure that they are fairly and properly treated. State licensing agencies must provide a fair hearing to an aggrieved blind licensee. The blind vendor who is dissatisfied with a fair hearing decision may request the Secretary of Education to convene an arbitration panel. Continued dissatisfaction allows the vendor to seek judicial review by a Federal District Court.

These program provisions are complex. What is simple and easy to grasp, however, is the data that measures the performance of this program.

Program Development and Benefits

Table 1 indicates that gross income has increased from \$20.6 million to \$319.2 million, average vendor earnings from \$2,209 to \$19,643 and number of vendors from 1,581 to 3,689 for the 32-year period. Over each 3 years, gross sales or income increased approximately \$20 million while average vendor earnings rose by approximately 20 percent. The number of blind vendors more than doubled from 1,581 in FY 1953 to 3,995 in FY 1977. After a decline during 1977 to 1983, the number of vendors increased to 3,689 by FY 1985. The decline in the number of vendors was due to adverse conditions for businesses located on other property, for there was a modest increase in the number of vendors located on federal property.

Fiscal year 1985 data indicated that of the 3,272 vending facilities, 2,354 were snack bars and other facilities, 485 were cafeterias, and 433 were vending machine facilities. The overall gross sales for the program was \$319.2 million with \$206.2 million for snack bars and other facilities, \$80 million for cafeterias and \$33 million for vending machine facilities. The average vendor income was \$19,643, with vendors operating snack bars earning \$18,302, cafeterias with \$26,330 and vending machine facilities with \$19,876.

In addition to these impressive income and sales figures, there are the following additional program benefits:

1. The Randolph-Sheppard program is the largest single *business employment* program for blind persons. In FY 1985, there were 3,689 blind vendors working in 3,272 facilities who earned an average income of \$19,643 as gross sales reached \$319.2 million.

of \$1.50-\$2.00, approximately one million customers each day may encounter 3,689 blind persons in the positive role of operators of businesses.

3. The average initial annual income of 4,120 blind persons receiving earnings as a result of their rehabilitation in FY 1984 was \$8,881.60. For the 3,653 initial and long-term employed vendors in the Randolph-Sheppard program in that same fiscal year average earnings were \$18,537.

Total annual wages paid to newly rehabilitated blind persons in FY 1984 were \$36,592,192 while \$60.6 million was the income for Randolph-Sheppard vendors in that year.

4. While the federal and state contributions to the Randolph Sheppard program totaled \$21.2 million, the program generated more than \$27,126,603 from federal income and state sales taxes alone. This estimate is based upon an assumption that each state had a sales tax of 5 percent

Table 1
Vending Facility Program Trends: Gross Income, Average Earnings; Vendors FY 1953-1985

Fiscal Year	Gross Income (Millions)	Percent Change
	Total	
1985	\$319.2	14.2
1983	279.6	14.7
1980	243.8	36.4
1977	178.8	33.7
1974	133.7	32.0
1971	101.3	28.2
1968	79.0	33.0
1965	59.4	30.0
1962	45.7	31.3
1959	34.8	34.9
1956	25.8	25.2
1953	20.6	

Fiscal Year	Average Earnings	Percent Change
	Total	
1985	\$19,643	13.5
1983	17,308	24.3
1980	13,927	30.7
1977	10,658	32.0
1974	8,076	23.9
1971	6,516	16.8
1968	5,580	18.3
1965	4,716	13.9
1962	4,140	23.4
1959	3,354	32.5
1956	2,532	14.6
1953	2,209	

Fiscal Year	Number of Vendors	Percent Change
	Total	
1985	3,689	0.3
1983	3,677	-6.7
1980	3,942	-1.3
1977	3,995	8.0
1974	3,698	7.1
1971	3,454	6.0
1968	3,259	16.1
1965	2,806	15.7
1962	2,425	14.9
1959	2,111	17.0
1956	1,804	14.1
1953	1,581	

for the \$319.2 million in sales, and that vendors taxed are at the single individual tax rate on their average income of \$19,643.

5. The state and Federal Governments' contribution of \$21.2 million (\$17.3 million federal and \$3.9 million state) to the Randolph-Sheppard program not only transformed potential tax consumers into taxpayers, but generated \$319.2 million in sales. Each public dollar had a multiplier effect of 15.1 in generating business activity.

6. The Randolph-Sheppard program transforms potential public assistance recipients into taxpayers. Assuming that the 3,689 business operators in FY 1985 were not employed and receiving a monthly federal-state Supplemental Security Income of \$277, the average annual payment to a nonemployed vendor would be \$3,324. The total public assistance cost would be \$12,262,236 for the blind persons currently employed in the program. Assuming these vendors were suddenly employed, they would be eligible for an average monthly Social Security Disability Income payment of \$469, which would equal an annual payment of \$5,632 for each vendor for a total of \$20,727,628.

7. The Randolph-Sheppard program is a self-help program for blind persons. Since Rehabilitation Act funds are not allowed for fringe benefits for operators in the program, retirement, health and vacation and sick leave benefits are paid for from the income of vendors and from vending machine income. In FY 1985, vendors taxed themselves \$9.4 million to be set-aside along with the \$3.2 million generated from vending machine income for these benefits as well as management and other services.

What are the challenges and bar-

Today, almost 3,700 blind business operators provide goods and services to an estimated one million customers a day.

riers limiting program expansion? Here are some challenges:

The Challenge of Three Different Concepts of the Program. The Randolph-Sheppard program has mirrored the social and business climate of the nation, as it has grown to be one of the nation's top food service providers. Within this perspective, the original concept of the legislation in the depression era was to create jobs and businesses to *reduce unemployment* for blind persons. When the Amendments of 1954 and 1965 provided preference and supporting management services, it became a *protected employment program*. With the Amendment of 1974 changing the preference to a priority and with income sharing and expansion of the range of articles to be sold and services to include cafeterias and other provisions, the program took on the appearance of a *state sponsored franchise business program* for blind persons. Related to these three overlapping and competing concepts of the program as a job creation, sheltered employment or state franchised business program for blind persons are different views of business concepts of the capacities of blind persons. A persons who views the Randolph-Sheppard program from the perspective of the job creation model may have a vision of an unskilled blind person sitting at a portable stand selling papers, magazines, candy and tobacco products and keeping cash in a cigar box. This individual may have trouble communicating with someone who has the perception of the protective employment model of a more skilled blind manager or a snack bar with a

sighted assistant. Persons with those two views may have more difficulty understanding the highly skilled and sophisticated blind manager of a cafeteria who supervises many employees and sells a wide variety of foods in a large facility.

While all states have a range of facilities, rural states (because of limited business opportunities) tend to have smaller facilities, while more urban states have a large mix of snack bars and cafeterias. The negative notions of the blind person's incapacity and his limited income from the dry stand, along with paternalistic views fostered in sheltered employment need to be replaced by the positive view of the blind manager contained in the state franchise model. The range of businesses within a state program, from the small stand to the larger facility, to the even larger cafeteria, should be conceived as career development, with people moving from the small to the larger and more lucrative facilities. This is based upon increasing competence through progressive experience and training. The state franchise model assumes this positive view of the capability of blind people.

The Challenge of Changing Stereotyped Views of the Randolph-Sheppard Program. The Randolph-Sheppard program is generally perceived as a make-work program that provides limited opportunities and incomes to nontalented blind people. VR counselors, blind people and many others view the program in this stereotypical way. The stereotype is based on the thought that operators

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Planning and Implementing Rehabilitation Technology Services

Alexandra Enders

For better or worse, technology plays a major role in our lives. Whether we love the stuff or not, its smooth operation influences our everyday existence. If you doubt that, just recall the last time your personal technology support system broke down: your car stalled in the middle of traffic, or the word processor crashed in the middle of a report due yesterday.

Knowing how and when to select the right device, be it a car, computer or potty chair, can make a big difference. Not being able to find something you need, or buying the wrong thing, can be extremely frustrating. Being unaware that a solution exists for a problem can not only be aggravating, but also painful and expensive. Not really knowing how to use your tools can be humiliating, inefficient and even dangerous.

Having a disability can compound these problems. The technology used by a person with a disability may be compensating for a physical or cognitive limitation, and there may be no other alternative for maintaining functional abilities. Yet, all too often, when obtaining or providing a technical aid, we forget to look beyond the mechanics of the actual piece of equipment. We overlook the system the device is a part of, and the services required to use it effectively. Why then are we surprised that it does not work for us as well as we had expected?

that technology support systems can be made more effective for people with disabilities. I promise that this will not be another piece on the glories of hardware. Not one word on high tech, no software packages, not even a tiny microprocessor. No innovative, low cost, do it yourself widgets either. And certainly nothing on the wonders just about to spring out from the research centers.

Well, if we don't cover any of that stuff, what is left? *Services.* Rehabilitation technology services. Perhaps not as glamorous as a nifty new computer or van, but as essential if you want everything to work properly as a support system.

What are Rehabilitation Engineering/Technology Services?

At the November 1986 Rehabilitation Services Administration Regional Forum in Atlanta, the director of the Rehabilitation Engineering Program at the University of Tennessee stated: "The provision of rehabilitation engineering/technology services is not simply providing a technical device. It is a systematic approach to service provision which can include: assessment, evaluation, information sharing, modification of commercial equipment, designing and fabrication of customized equipment, usage training, maintenance and repairs; all functioning as an integral part of a comprehensive rehabilitation service delivery system. It is not necessary that professionals

be rehabilitation engineers in order to become skilled at provision of appropriate technological services. Many appropriate services can be provided for disabled people that do not require extensive involvement of engineering design and fabrication. In many cases, the engineering contribution has already been made in the research and development of the commercial product. However, rehabilitation engineering services are ideally provided in a multidisciplinary professional environment that can support the needs and desires of the disabled consumer."¹

He goes on to say that "the definition of rehabilitation engineering recognizes that handicapped people have differing needs for technological support over the course of a day's activities, as well as throughout the span of their lifecycle, if they are to gain equal access to educational, employment, and recreational opportunities enjoyed by the majority. For example, it is rather meaningless to create employment opportunities for a person who cannot achieve the independence necessary to effectively live and travel to his chosen work-site."²

Having established that services are critical to applying technology appropriately, increased attention is being focused on the service delivery aspects of technology support systems. The Rehabilitation Act Amendments of 1986 includes a major new initiative on rehabilita-

tion engineering/technology services. As defined in the Amendments, "the term rehabilitation engineering means the systematic application of technologies, engineering methodologies, or scientific principles to meet the needs of and address the barriers confronted by individuals with handicaps in areas which include education, rehabilitation, employment, transportation, independent living, and recreation." ³

In Title I of the Act, under "Vocational Rehabilitation Services," the state vocational rehabilitation agency will now be required, within the state plan to "describe how rehabilitation engineering services will be provided to assist an increasing number of individuals with handicaps;" in each Individualized Written Rehabilitation Plan (IWRP), "where appropriate, include a statement of the specific rehabilitation engineering services to be provided to assist in the implementation of intermediate objectives and long-range rehabilitation goals for the individual;" within the "Scope of Vocational Rehabilitation Services," evaluation of rehabilitation potential includes "where appropriate, evaluation by personnel skilled in rehabilitation engineering technology," and adds "rehabilitation engineering services" to the clause which includes telecommunications, sensory and other technological aids and devices. Additionally, rehabilitation engineering services have been added "to the list of services to be provided without consideration of similar benefits." ⁴

Rehabilitation Technology Services: A New Concept

The field of technology services is broad, and is emerging from several different arenas, responding to different demands and varying needs. Some of the practitioners may have

not yet recognized that they all belong under the same broad umbrella of rehabilitation technology services. Some programs have emerged from the traditional field of prosthetics/orthotics, others from the durable medical equipment industry. Interest in job site modification spurred some, others developed along with the advances in technology (e.g., augmentative communication, or specialized vehicles). Some have a strong architectural/design flavor, others respond to certain populations, such as farmers or children. Some are for profit, others are in the public sector. Some are heavily oriented to information provision, while others primarily sell quality assurance and case review.

What we are now generically calling "rehabilitation technology services" have been provided under various other names for many years. The practice may not be new, but the necessity for a conceptual change is. "What has changed significantly in the past several years is the nature of the technology available for helping persons with disabilities . . . and the environment in which rehabilitation services are provided." ⁵

The increased complexity, variety and potential benefits of technological support demand that we learn to take advantage of methods that will ensure getting the most value from available resources. Specialized technology for people with disabilities has been available from prosthetists, orthotists, occupational therapists, physical therapists, speech pathologists, orthopedists, durable medical equipment vendors, rehabilitation engineers, rehabilitation technologists, van modifiers and adapted driving specialists, wheelchair repair shops, rehabilitation engineering centers, hospitals, clinics, workshops, special education programs, chari-

table groups, pharmacies, low vision clinics, etc. However, technology services may or may not have been provided with the equipment.

The idea of categorizing services related to technology as a new package is clearly a conceptual leap. We generally are not used to thinking about, or paying for, "services" when equipment is involved. For many devices, most of the related service costs are embedded in the price of the hardware (e.g., you pay one price for an artificial leg, and it includes the evaluation, fabrication, fitting, follow up, etc.) or we conceptually separate the device from the evaluation and training (e.g., a driving evaluation and driver's training are not usually thought of as part of technology service delivery). However, if ensuring the safe operation of a vehicle is the goal, all the pieces of the process are being aimed at making the best operational interface between the person and device (vehicle) and the environment.

We are accustomed to receiving our technology bills either nonitemized or in separate categories under the guise of variously named professional services. As more technical people participate in comprehensive rehabilitation teams, these patterns create difficulty for payment in situations where the actual hardware may cost \$3, but the technology related services may have taken 10 hours (especially when you know you could have bought that widget yourself at the local hardware store). The reporting and billing methods we have used are now making it difficult to describe what we are actually doing. Fortunately, there has been enough success experienced in these new endeavors that the issues at hand are not so much trying to demonstrate the value of rehabilitation technology services, but figuring out ways to

“Many appropriate services can be provided for disabled people that do not require extensive involvement of engineering design and fabrication.”

readjust our bureaucracies to incorporate these new and broader concepts.

Approaches To Using Technology Services

State vocational rehabilitation agencies have been purchasing technology services for years. Many have clearly written procedures under such headings as van modification, home modification, prosthetics, and communication aids. (I know of no state that has compiled all of its technology related procedures and policies into one reference manual or even into one section.) They have tried many different approaches to incorporating technology services into their programs, ranging from training counselors to be more aware of the potential benefits of appropriately applied technology and teaching them to be more informed “shoppers” for services to hiring professional engineers within the agency who actually provide the assessment and technology fabrication services. These alternatives merit further discussion.

Based on the range of activities listed earlier that can be included in the scope of engineering/technology services, it is somewhat puzzling to see state agencies trying to develop in-house engineering capacity when they were not likely to develop, for example, an in-house prosthetics staff, or an agency employed van modifier. Doubtless, many of these efforts were fueled by the frustrations of limited, or seemingly nonexistent, sources for needed services. It may no longer be necessary for state agencies to try to fill this gap in technology services by developing an

internal service delivery capacity. If agencies cannot find the required services in the community, it should be relatively easy to foster their development out there, especially if several different agencies in the state recognize the need for encouraging such private sector enterprise. (Agencies with responsibility for rehabilitation, developmental disabilities, special education, and aging are some of the more obvious ones to get involved.) It may actually be counterproductive in the long run for government agencies to develop in-house services which could impede the development of private sector initiatives. Though it may initially be a more complex procedure finding ways to establish services in the private sector, in the long run it is bound to be more cost effective and will reduce the agency's exposure to malpractice and product liability litigation.

Shopping for technology services deserves a little more attention. This approach has long been practiced by agency staff in all areas of vocational rehabilitation. (“Shopping” probably has a more elaborate name in professional jargon, but I think the concept is straightforward: the counsellor, acting as a case manager, selects the most appropriate combination of available services for a client.) Somewhere along the line the notion of purchasing technology services and providing technology services came to mean the same thing. It may be one reason why there is a panic to “provide” technology services by hiring an engineer to actually do the services, rather than following the more traditional shop-

ping approach, and finding the most appropriate outside source for the technology/service.

Some of the states are using the “shopping” model for technology services. An agency employee serves as a rehabilitation technology specialist; that person may or may not be an engineer, but usually acts in the role of “expert shopper,” trainer, and quality assurance consultant. Even when engineers have been hired as state agency employees to do the evaluations and fabrication, they often are called on to play an “expert shopper” role (even when a client's needs fall outside their area of expertise) and to be involved with training and quality assurance activities. A note of caution is needed here. It is not likely that most engineering schools prepare their graduates for these roles, and, with the exception of a notable few self-trained hybrids, it is unrealistic to expect one person to perform all these activities well. Lack of this type of highly specialized personnel is just one more reason to look beyond the “agency engineer as service provider” model.

It is fortunate that the new Rehabilitation Act Amendments do not limit state agencies to any particular model of rehabilitation engineering/technology services. It provides agencies with the opportunity to analyze some of the earlier exemplary models and to ensure that they remain consistent with current service delivery practices, expectations and case management pressures.

Coordinated Planning For Technology Services: A State Initiative

Rehabilitation technology service delivery is an emerging field. There is no one definitive model or exemplary program that can or should be copied as states attempt to meet their new mandate. Before any ac-

tion is taken, it is essential that each state assess the scope of its need, identify currently available resources and set realistic goals. Planning for the individual requirements of each state must occur locally, in order to ensure that services will comprehensively meet the needs of disabled citizens. It is important to keep in mind that the state vocational rehabilitation agency is only one of the programs that needs to be involved in planning for comprehensive technology services for disabled people of all ages.

An interesting approach was taken by the State of Minnesota. In October 1985, the Governor created a 19-member Issue Team on Technology for People with Disabilities to investigate the potential of high technology to improve the quality of life for disabled Minnesotans. Over the next 6 months, the issue team explored ways to increase awareness for users, the public and professionals; to provide access to appropriate technology based products and services; and to fund research and development that addressed the critical needs in the field. In June 1986, a full report and *Executive Summary* was released with 12 specific "Recommendations for Strategic Action." It concludes with future implications: "The next 5 to 10 years will be critical to the shape of the future. Action must be taken in the areas of information sharing, funding, and research and development within a carefully conceived strategy that is fully supported with adequate human and financial resources. The costs of doing so will be far outweighed by savings in productivity, economic growth, and human dignity. We can afford to do no less." Minnesota's recently reelected Governor Perpich is the first governor in the nation to make technology for disabled people

a policy priority. He has signed an executive order establishing an Advisory Council on Technology for People with Disabilities, and some of the issue team's recommendations are already being implemented.

The governor of your state could be encouraged to initiate a technology and disability task force, with representatives from public and private sectors, charged with planning coordinated and integrated statewide activities related to technology for disabled people. The issues should be specific to your state (e.g., your task force may decide not to include research and development, focusing more on equitable distribution issues). It is recommended that the focus be broader than just "high tech." This type of unified approach could reduce predictable duplication of effort as different agencies within the state begin to independently develop mechanisms for implementing appropriate technology services over the next few years. It would also enhance the capacity for development or expansion of private sector rehabilitation technology services as a market for these services is defined. Increased private sector involvement has traditionally proven to be more cost effective than government run operations; agencies are able to buy only what they need, no more and no less, a capability that is usually lost when they are trying to provide similar services with their own personnel. A strong and responsive private sector also strengthens the state's economic base.

Resources Supporting Planning and Implementation Efforts

There are several Office of Special Education and Rehabilitation Services (OSERS), Department of Education, funded projects that will assist the planning and implementation efforts for rehabilitation technology ser-

vices:

- The National Institute on Disability and Rehabilitation Research (formerly the National Institute of Handicapped Research) is funding a Research and Demonstration Project at the Electronic Industries Foundation to "develop an integrated approach to the development of a national rehabilitation technology service delivery system." Project investigators have been studying the issues discussed in this article and others related to encouraging the development of coordinated rehabilitation service delivery systems. As part of the grant, a National Symposium on Rehabilitation Technology Service Delivery was held in Arkansas in September 1986. Twenty-nine exemplary service delivery programs were invited to participate. They were selected to represent the broadest range of activities on a continuum of approaches to technology services. This symposium drew attention to the growth and increasing availability of both technology and technology related services. Based on information obtained at the symposium, the Association for the Advancement of Rehabilitation Technology, RESNA (formerly the Rehabilitation Engineering Society of North America), will be producing a *Guidebook to Rehabilitation Technology Service Delivery*, available late 1987. It will contain information on service delivery program development, business practices, financing strategies, marketing, and outreach, as well as overview material on existing models, exemplary programs, and available resources. RESNA is also compiling a nationwide listing of programs providing rehabilitation technology services. This list should be available in March 1987.

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Projects With Industry

A Resource for Business and Industry

Alan Goldstein

In the late 1960's the Federal Government conceived an initiative to encourage business and industry to directly train and employ disabled people. The plan was to allocate funds to private business to support this initiative—a concept that was both daring and frightening. A select number of rehabilitation agencies were contacted to act as middle men in the process of moving job-ready disabled people directly into the competitive labor market. Projects With Industry (PWI) resulted and is a resounding success primarily because of two factors:

- PWI is based on the formation of a Business Advisory Council (BAC) which involves business and industrial representatives in a consultive role to guide the work of the project.
- PWI identifies with the business community and has prioritized serving the needs of employers on a par with those of disabled people.

BAC's have a broad range of purpose and function. In working with PWI's, council members become knowledgeable and are advocates; they frequently speak at conferences and to community representatives. Members consult with PWI staff regarding their field of expertise and related insights, and also with clients, where consultation usually includes job interview role playing. Members sponsor council meetings and participate in the development of program

agenda. They also actively solicit peers to join the council. BAC's provide marketing and public relations expertise; in some communities their own public relations departments provide audiovisual aids, letterheads, brochures, and business cards. Members provide jobs and contracts for transitional employment. In some instances, sponsoring members pay dues, which can be used as matching funds to the federal supporting grant as well as to directly support the program. Most importantly, BAC's involve an amalgamation of all those community representatives responsible for the success of PWI—employers, project staff, union representatives, state vocational rehabilitation liaisons, regional representatives of the Rehabilitation Services Administration, and consumers.

PWI's are a recognized resource to employers. In addition to providing a pool of qualified job applicants, projects are often used for evaluation and vocation rehabilitation of industrially injured employees. Project staff consult with family members and provide counseling and information regarding community services. For job applicants they provide direct assistance in transportation, interview preparation and job coaching. In addition to providing counseling services to disabled employees, staff consult with employers regarding Equal

Employment Opportunity guidelines and tax credits for hiring disabled people. Often, PWI's work directly with corporate medical departments as part of a vocational rehabilitation team.

Training is offered at the employer's work site. Project staff conduct human relations programs for management and serve as a communication link between the BAC corporate member and the supervisor. In addition, staff conduct company site tours to review existing employment conditions, promote job modification, help identify potential employment opportunities, promote the understanding of disabling conditions, help to recognize discriminatory hiring practices, and identify attitudinal barriers.

Followup services are welcomed at the job site. The vocational rehabilitation counselor and job coach help insure adjustment to the new job. They can provide interpreters for the hearing impaired, assist in orientation, and provide regular contact as needed. Some projects offer services around the clock and staff are available as job trainers at the work site.

Screening is appreciated by industrial human resource departments. Diagnosis and current status of disability, employment history, family

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Testing for the Rehabilitation Pulse in the Corporate World

Anthony S. DeSimone and Marylynn Smith

This article, written by the unlikely combination of a "Fed" and a private sector representative, is essentially based on a report prepared by Marylynn Smith on a year's experience in the California rehabilitation community. The "Fed," Anthony S. DeSimone, Commissioner of the Rehabilitation Services Administration, Region IX, San Francisco, discovered Ms. Smith working for a multinational corporation in San Jose and invited her to expand on work she was involved with locally to a statewide level.

Acting as the facilitator, Mr. DeSimone assisted in arranging for a one-year, paid leave of absence as part of the corporate executive loan program. Ms. Smith and the California Department of Rehabilitation then developed two major objectives:

- to assist rehabilitation staff in understanding the needs of the corporate world and how to market the disabled job seeker; and
- to develop a model structure that could be replicated throughout the state—and beyond—which would bring together business representatives and rehabilitation service providers.

In pursuit of the first objective, Ms. Smith developed a TRUE—FALSE test, based on the following statements:

(1) Business people are cautious and profit oriented—true

Business succeeds if it makes \$\$\$\$\$. Profit is the prime consideration. Once that fact is accepted, not condemned, opportunities can be made to work for the mutual benefit of rehabilitation and business.

(2) Business people don't really care to get involved—false

There are many business groups meeting regularly, searching for ways to assist disabled job seekers and using their business acumen and creative ideas in support of rehabilitation. That energy, creativity and inventiveness is not often seen by the rehabilitation world.

(3) Business people often don't take time to listen—true

Schedules, deadlines and pressure are all part of the American business world. Persistence is perhaps the one single quality one must have in reaching out to business people. Don't give up if you are cancelled from a meeting or seemingly avoided. Keep trying to make contact. The potential resources of time, money and talent could be one more call away.

4. The future is solid for services to disabled—false

Budget cuts, staffing reductions and

the current emphasis on "less government," are factors that constantly threaten the resources available to the disabled. Drawing on American industry as a resource makes good sense. There is a growing awareness within business of the benefits of hiring persons with disabilities.

5. Rehabilitation is complacent about business needs—false

There is sincere interest and concern about "meeting the needs of the business world." Many programs are directed at trying to address the lingering, underlying view that business people are in some subtle way the adversary. Two points of view were observed. One group viewed business participation as "positive and good." Another group saw business people as "necessary objects."

6. Events sponsored by rehabilitation can create strong business participation and support—true

The key to a successful business-supported event is the manner in which the project is presented. If the event has clear objectives, a well prepared plan, a schedule, and an outline of expected results, the business folks are more likely to join in. We all have heard of very successful events. When those events are looked at closely, the above components are always present.

Business is looking for ways to be a constructive, positive force in the community and the rehabilitation world is recognizing the potential rewards of a closer liaison with business.

7. Appeals to a sense of altruism bring results—false

Many disabled job seekers want opportunity, not charity. They want self-esteem in the work place. Most business people are caring folks; they have a good conscience about their fellow humans, but they must first consider their business objectives.

8. Resource potentials, community industry, visibility, other benefits to the company bring greater response—true

Now you have business people's attention. Talk to them in their own jargon. Understand the business "system" and the goals, objectives, and methods of operations.

Most are willing to hire/assist the disabled job seeker and at the same time turn a profit. Disabled employees have much to contribute to business. Always stress how much benefit there is in this work source.

9. The rehabilitation environment is "mostly unknown" to the private sector—true

Many business people who have job openings are just not connected to the disabled job seeker. What rehabilitation does is not commonly understood in many businesses. Some personnel have some understanding, but it's important that rehabilitation recognize that the hiring managers are not as "up on rehab" as they could be. This is an area where so much "bridge building" work could take place.

10. There is a gap between the rehab community and the business community—true

Each side is unsure of the goals and actions of the other. Rehab sees resistance in business and is reluctant to bridge the gap. Business is profit-motivated and has some scars from ineffective rehabilitation programs. This view came after many months on assignment hearing both sides, being trusted by both sides as "one of

Persistence is perhaps the one single quality one must have in reaching out to business people.

us" in a "them and us" situation. Business is looking for ways to be a constructive, positive force in the community and the rehab world is recognizing the potential rewards of a closer liaison with business.

11. Currently, 8 percent of the GNP is going to serve the disabled population—true

The above was borrowed from Jay Rocklin, President's Committee on Employment of the Handicapped. It has been the most convincing tool used with the private sector. It has almost consistently made the business person stop, reflect on the information, and then begin to see the importance and overall benefits of supporting employment opportunities for that population. It makes sound fiscal and economic sense to return the disabled worker to the work place as soon as possible and to find employment for disabled persons entering the labor force for the first time. That

fact has the attention of most major corporations.

The second objective grew naturally from the work Ms. Smith was doing in San Jose. Her proposal to develop a pilot project for the California Governor's Committee on Employment of the Handicapped was accepted, and it was called Business Resources Advisory Group (BRAG). The advisory group is composed solely of private sector employers. BRAG would advise local community mayors' committees on employment of handicapped people on issues of concern to the business community. BRAG is a rehabilitation community resource available to state VR counselors and other service providers

concerned with job placement of disabled people.

The rehabilitation pulse of the corporate world is beating strongly in some locales and fluttering faintly in others. In the latter places, a massive transfusion of joint creative cooperation between the public and private sector is needed. Ms. Smith's experience in California is convincing evidence of the potential for healthy development.

Since Ms. Smith's collaboration in California, the Nevada and District of Columbia VR agencies have obtained an executive loaner to guide those agencies through the corporate marketplace. VR agencies should be encouraged to reach out to local corporations for executives that have skills and experience that will assist them to market qualified people with disabilities.

[This article represents the views and opinions of the authors and not necessarily those of the Department of Education.]

PUBLICATIONS & FILMS

Profiles in the Arts. National Endowment for the Arts and the President's Committee on Employment of the Handicapped. Government Printing Office, Superintendent of Documents, Washington, D.C. 20402. Stock number, 040-000-00501-3. Seventy pages. Paperback, \$4.75.

This book highlights the experiences of 20 disabled American artists and arts administrators.

Mental Illness in Primary Care Settings. Edited by Michael Shepherd and Paul Williams. Methuen, 29 West 35th Street, New York, New York 10001. 296 pages. Hardback, \$39.95.

With contributions from internationally recognized experts, this text presents current work on contemporary practices and innovations and highlights fundamental challenges and obstacles. The individual papers are written by clinicians and research workers from psychiatry, general practice, psychology, social work, and sociology and range across the classification of mental disorder, screening, professional team roles, treatment effectiveness, and patterns of collaboration.

Deafness in the Adult: What a Hearing Loss Means and What Can Be Done to Help. Winifred Brinson. Sterling Publishing Company, Inc., 2 Park Avenue, New York, New York 10016. 238 pages. Paperback, \$7.95.

A guide for hearing loss victims, their families and friends, this book answers questions about why hearing loss occurs, treatments to consider and techniques to maintain a normal life.

Alcohol: Our Favorite Drug. Royal College of Psychiatrists. Methuen, 29 West 35th Street, New York, New York 10001. 213 pages. Hardback, \$45.00; paperback, \$15.95.

This book is an expanded version of *Alcohol and Alcoholism* (1979), with the inclusion of sections on causes of excessive drinking, prevention, self-help, workplace problems, and women and alcohol. It defines such terms as *alcoholic* and *addict* in the light of recent thinking and makes policy recommendations on drinking and driving and taxation, as well as personal recommendations for safe, risky and harmful weekly intake.

Patient and Family Education: Teaching Programs for Managing Chronic Disease and Disability. Marcia Hanak, B.S.N., M.A. Springer Publishing Company, 536 Broadway, New York, New York 10012. 267 pages. Paperback, \$22.95.

Primarily focusing on nursing's role in patient education, this book is designed to address three of the most frequently cited problems nurses say impede maintenance of a successful patient education program. These concerns are: the lack of time to develop and maintain a program; the lack of funds to implement a program; and the lack of confidence in one's own knowledge of the subjects.

This text is divided into five parts: Part I, Overview of Patient Education; Part II, Chronic Disease and Health Care Management; Part III, Disability Management; Part IV, Psychosocial Considerations; and Part V, Evaluation and Documentation Tools.

Pre- and Peri-Natal Psychology Journal. Tom Verny, M.D., Editor. Official journal of the Pre- and Peri-Natal Psychology Association of North America. Quarterly. Annual subscription: personal, \$30; institutions, \$79.

This new journal first published in Fall 1986, seeks to further understanding and research in all areas related to the psychology of pregnancy, labor, delivery, and postpartum adjustment of pregnant women as well as the ways in which the pregnant mother influences her unborn child's physical, intellectual and emotional development.

Articles planned will investigate the psychology of reproduction; study the psychology of medical intervention during pregnancy, labor and delivery on both the pregnant mother and the child; explore remedial techniques and approaches to counteract pre- and peri-natal trauma in people of all ages; and promote the institution of measures that will enhance pregnancy, labor and delivery, the mental and physical health of mothers- and fathers-to-be, and pregnant mothers and their babies.

Cognitive Analysis of Dyslexia. Philip H. K. Seymour. Methuen, Inc., 29 West 35th Street, New York, New York 10001. 265 pages. Hardback, \$35.95.

The author bases his discussion on the assumption that the mental system underlying reading competence can be represented as a set of information processors and that these components can be investigated by an application of the experimental methods of cognitive psychology.

NEWS, NOTES, ANNOUNCEMENTS

National Conference Scheduled April 5-8

National Industries for the Severely Handicapped (NISH) will hold its 1987 National Conference April 5-8 at the Albuquerque Hilton Hotel, Albuquerque, New Mexico.

NISH is the central nonprofit agency designed by the Presidentially appointed Committee for Purchase from the Blind and Other Severely Handicapped (CPBOSH) to represent all sheltered work centers employing severely handicapped people (other than blind) in supplying commodities and services to the Federal Government under the Javits-Wagner-O'Day Act, Public Law 92-28.

Last year's conference attracted more than 400 work center executives interested in doing business with the Federal Government.

For further information, telephone Margaret Beckham or Linda Schulte of NISH at (703) 560-6800.

Moss Rehab Hospital Establishes New Lab

Moss Rehabilitation Hospital has established a Neuropsychology Research Laboratory, with Myrna F. Schwartz, Ph.D., as its director.

The new laboratory will conduct studies of cognitive disorders arising from brain damage, especially its effect on language, memory, perception, and action.

Some \$150,000 in grants from the National Institute on Aging and the
18 National Institute of Neurological

Communicative Diseases and Stroke support the laboratory.

Specific projects underway focus on the cognitive breakdown in Alzheimer's disease and the psycholinguistic analysis of language disorders in aphasia and dementia. The general aim is to use the analytic tools of experimental neuropsychology to pinpoint functional disorders so that patients can be assisted in redeveloping lost skills.

Moss Rehabilitation Hospital, a 142-bed not-for-profit institution, has been the greater Philadelphia region's major resource for restorative services for more than 27 years.

Federation Pledges 160,000 Jobs by 1993

The American Retail Federation has pledged jobs totaling 1 percent of its 16 million member workforce for developmentally disabled Americans by 1993.

Federation President Joseph P. O'Neill pledged the jobs in an agreement with the Department of Health and Human Service's Office of Human Development Services, which is spearheading a national employment initiative to encourage private sector jobs for persons with developmental disabilities.

The American Retail Federation represents more than 1 million retail establishments, including 50 state and 30 national retail associations, who employ nearly 16 million people.

There are 3.9 million people in the United States with developmental disabilities attributable to a mental or

physical impairment, including mental retardation, cerebral palsy and epilepsy.

The American Retail Federation joins a growing number of businesses and industries that are committed to hiring developmentally disabled people.

For further information, write to: Employment Initiative, Department of Health and Human Services, Washington, D.C. 20201.

Spina Bifida Meeting Scheduled June 17-20

The Annual Spina Bifida Association of America and International Federation for Hydrocephalus and Spina Bifida Conference will be held June 17-20 at the Sheraton Denver Tech Center, in Denver, Colorado.

The program will feature medical updates by an international panel of physicians and other medical professionals; wheelchair sports activities; "Nancy Jane," a drama by playwright Nancy Gingher; a hands-on, model integrated school playground; and social activities for children and teens.

For additional information, write: Spina Bifida Association of America, 1700 Rockville Pike, Suite 540, Rockville, Maryland 20852. Telephone: (302) 770-SBAA, or 1-800-621-3143 toll free.

California State U Computer Conference Set for October 15-18

Papers are being solicited for the third annual "Commuter Technology Special Education/Rehabilitation" international conference to be held at California State University, North-

ridge (Los Angeles area), October 15-17. The 1986 conference drew more than 1,000 participants from as far away as Australia, New Zealand, Norway, Ireland, Canada, and American Samoa.

Persons interested should submit a 300-500 word proposal no later than May 1. Papers should deal with specific, practical strategies rather than theoretical issues. One-hour sessions dealing with computer applications across all disabilities are desired.

For a "Call for Papers" brochure, contact: Dr. Harry J. Murphy, Conference Coordinator, California State University, Northridge, 18111 Nordhoff Street, Northridge, California 91330. Telephone: (818) 885-2578.

June 3-5 Conference on Rehab Technology

The 5th Annual Rehabilitation Technology Associates Conference will be held June 3-5 in Atlanta. The conference seeks to encourage the integration of technology and rehabilitation by providing a forum for education, consultation and information exchange.

Seminars and concurrent sessions will include topics such as productivity enhancement through office automation; planning—identifying needs and anticipating the future; applications development workshops; and the organizational impact of automation. The conference will also offer state-of-the-art briefings to explore applications recently implemented or under development in rehabilitation.

For more information, contact: David Whipp, RTA Coordinator, West Virginia Research and Training Center, One Dunbar Plaza, Suite E, Dunbar, West Virginia 25064. Telephone: (304) 766-7138.

1987 PCEH Conference Set for April 22-23

The Annual Conference of the President's Committee on Employment of the Handicapped this year will be held outside of Washington, D.C., for the first time in its 40-year history.

The 1987 conference will be hosted April 22-23 in Denver by the Colorado Coalition for Persons with Disabilities. Seminars and workshops will focus on issues regarding employment of people with disabilities and Congressional hearings on legislation. Also featured will be a Colorado Job Fair, an Employers Banquet honoring U.S. companies for significant efforts in affirmative action, an exhibit area of over 100 agency and company displays of adaptive equipment and innovative programming techniques, and an awards ceremony.

Memorial Scholarship Honors Louis H. Rives

A scholarship fund for blind law students has been established by the American Foundation for the Blind (AFB) in memory of a former trustee, Louis H. Rives, Jr., who died September 4, 1986.

Blind since early childhood, Mr. Rives earned a law degree from the College of William and Mary and devoted more than 40 years to the field of blindness. He began his career in vocational rehabilitation in the Office of the General Counsel (a forerunner of the Rehabilitation Services Administration) in the Federal Security Agency (which later became the Department of Health, Education, and Welfare). He served as director of RSA's Division for the Blind until his retirement from federal service in 1974.

He then served as director of research at the Arkansas Enterprises for the Blind and later as administrator of the Arkansas Office for the Blind and Visually Impaired. He was a past president of the American Association of Workers for the Blind, former director of the Affiliated Leadership League for the Blind and a member of AFB's board of trustees from 1979 until his death.

The scholarship for blind law school students is being funded by AFB as well as through public support. For information, write Louis H. Rives, Jr., Memorial Scholarship Fund, American Foundation for the Blind, 15 West 16th Street, Box 612, New York, New York 10011. Telephone: (212) 620-2022.

Scholarships Awarded to Visually Impaired

The American Foundation for the Blind (AFB) has announced 21 recipients of 1986 scholarships for blind and visually impaired college students. The grants, ranging from \$1,000 to \$3,000, are awarded each academic year from the Helen Keller Scholarship Fund for Services to Deaf-Blind College Students, the Rudolph Dillman Scholarship Fund, the R.L. Gillette Scholarship Fund, the Gladys C. Anderson Memorial Scholarship Fund, and the National Chinese-American Scholarship Fund.

AFB, administrator of the five scholarship programs, is a national nonprofit organization serving the needs of blind and visually impaired people in cooperation with more than 700 agencies, organizations and schools nationwide.



REPORT RESOURCES

SECOND WIND. Rogers, Channel 10 Vancouver and the British Columbia (Canada) Sports and Recreation Council for the Disabled. Video cassette, available on loan in Beta or VHS formats from Jane Thompson, BC sports and Fitness, 1200 Hornby Street, Vancouver, British Columbia, Canada, B6Z 2E2.

"Second Wind" demonstrates that disabled people have a desire to get out, participate and achieve, and that sports are an excellent avenue for this. World class wheelchair athlete Rick Hansen interviews six athletes with various disabilities who participate in a wide spectrum of recreational and competitive sports, from floor hockey to racquetball. Some of the athletes featured are Ian Gregson, an amputee weightlifter; Jacqueline Foews, an accomplished ice skater with only 5 percent vision; and Collen Smith, a paraplegic who enjoys horseback riding. The athletes describe benefits derived from sports and the importance of motivation.

TECHNOLOGY: ON-LINE FOR INDEPENDENT LIVING. 1985-86 annual report. Free. Public Relations Department AR, American Foundation for the Blind (AFB), 15 West 16th Street, New York, New York 10011.

Technology, its impact on the lives of blind and visually impaired people, and how it helps them to live more independently is the theme of this report, which highlights AFB's National Technology Center.

This report covers the center's three main divisions: research and development, evaluations, and data base services.

HANDBOOK OF MEASUREMENT AND EVALUATION IN REHABILITATION, Second Edition. Edited by Brian Bolton, Ph.D. 370 pages. Hardcover. \$35. Paul H. Brooks Publishing Company, P.O. Box 10624, Baltimore, Maryland 21285. Toll free telephone number: 1-800-638-3775.

The authors have revised and expanded their original work to create a comprehensive sourcebook of effective techniques and procedures for client assessment in rehabilitation. Focusing on functional assessment instead of simple diagnostic evaluation, this book promises to dramatically enhance client counseling efforts and program planning.

PROJECT PLANTWORK. A Horticulture Employment Initiative for Workers with Developmental Disabilities. \$15. Send checks, payable to "NCTRH," to National Council for Therapy and Rehabilitation through Horticulture, The National Horticulture Therapy Association, 9220 Wightman Road, Suite 300, Gaithersburg, Maryland 20879.

"Project Plantwork" is a national demonstration program which operated in Philadelphia and vicinity from October 1984 through June 1986 to demonstrate and test the effectiveness of previously untried techniques for training and employing greater numbers of workers with developmental disabilities in the horticulture industry. Some 70 workers were employed during the 21-month period.

This 92-page training manual details the structure and procedures of

"Project Plantwork" and provides programmatic ideas for those interested in establishing industry-specific job development programs for persons with developmental disabilities as well as existing Projects With Industry and job development programs interested in expanding service.

REFERRING BLIND AND LOW VISION PATIENTS FOR REHABILITATION SERVICES: A GUIDE FOR OPHTHALMOLOGISTS. Single copies are free. Publications and Information Services, American Foundation for the Blind (AFB), 15 West 16th Street, New York, New York 10011. Telephone: 1-800-AFBLIND.

Designed to assist ophthalmologists in referring their blind and visually impaired patients to quality rehabilitation programs, this pamphlet describes the components of a good clinical low vision examination and the services a physician should look for in a low vision facility. Specialized services are also noted, including orientation and mobility training, psycho-social counseling, vocational rehabilitation, and financial aid programs.

AGRICULTURE TOOLS, EQUIPMENT, MACHINERY AND BUILDINGS FOR FARMER'S AND RANCHERS WITH PHYSICAL HANDICAPS. Enclose check or money order for \$30 payable to Purdue University/Breaking New Ground. Mail to: Breaking New Ground, Department of Agricultural Engineering, Purdue University, West Lafayette, Indiana 47907.

Publication contains over 200 pages of devices, ideas and resources being used by agricultural producers with physical handicaps.

THE PHYSICALLY DISABLED TRAVELER'S GUIDE. \$9.95 plus \$2.00 for postage and handling. Resource Directories, 3103 Executive Parkway, Department MT, Toledo, Ohio 43606. Telephone: (419) 536-5353.

This directory provides information on transportation, including national and international airports, airlines, buses, trains, rental cars, and private cars; accessible cruises and tours; worldwide travel agencies and associations, which serve disabled clients; lodging—accessibility standards for 13 chains plus state lodging directories; 154 resorts with handicapped facilities; over 700 national and international access guides covering lodging, restaurants, tourist attractions, and transportation; and camps, camping and wilderness expeditions.

HEALTH GROUPS IN WASHINGTON: A DIRECTORY. 1986 edition. National Health Council, Inc., 622 Third Avenue—34th Floor, New York, New York 10017-6765. Single copies: nonmembers, \$10; council members, \$8. Also include \$2 for postage and handling.

Listed are 502 national and nongovernmental health and health-related organizations which are either headquartered in Washington, D.C., or have an office or representatives in the Washington metropolitan area. Organizations included are voluntary health agencies; professional, membership or trade associations; insurance companies; pharmaceutical manufacturers; health-related organizations and accreditation/certification groups. A separate section lists the headquarters addresses of the National Health Council's member organizations.

Each of the 502 separate entries provide the reader with the name, address and phone number of the

national organization and the name of the chief executive in the Washington office and/or the government relations or public policy staff person. To enhance its usefulness, the directory includes an extensive subject index (110 listings) and a name index (580 names).

FITNESS IS FOR EVERYONE. Series of six video tapes, can be ordered individually at \$13.50 each, or as a package for approximately \$30. To order, call 800-321-5715 or the National Handicapped Sports and Recreation Association (NHSRA) at (202) 783-1441.

Physically disabled people need not be sideline spectators to the nation's growing fitness movement. They can join in with some guidance from this series of specially designed aerobic and strength building routines recently made available on video tape. The six tapes were conceived and designed by NHSRA and illustrate specific exercises for specific disability groups. All tapes include safety precautions and ways to monitor progress.

DIRECTORY OF RECREATION RESOURCES FOR THE HANDICAPPED. Editor, Mickey A. Christason, therapeutic recreation consultant. \$19.95 each (\$2.00 discount to handicapped people), plus \$2.00 mailing fee. California residents add 6.5 percent sales tax. Send check or money order to: Mickey A. Christason, 11066 Gonsalves Place, Cerritos, California 90701.

This 241-page directory contains a 153-page section on 135 agencies providing actual programs and services; a 13-page section on 141 local, state, national, and international organizations concerned with handicapped people, with emphasis on

accessibility, recreation sports and travel; and a 59-page section of 17 specific categories on 824 general resource information services for recreation and the use of leisure.

THE ICD SURVEY OF DISABLED AMERICANS: BRINGING DISABLED AMERICANS INTO THE MAINSTREAM. \$5. Education and Training Department, International Center for the Disabled, 340 East 24th Street, New York, New York 10010.

Conducted during November and December 1985, the survey is based on telephone interviews with 1,000 disabled people 16 years or older with a variety of conditions ranging from blindness and loss of limbs to disease, arthritis, and neurological disorders.

DIRECTORY OF FACILITIES AND SERVICES FOR THE LEARNING DISABLED. Available March 1987. Free on request, but include \$2.00 for postage and handling. Academic Therapy Publications, 20 Commercial Blvd., Novato, California 94947-6191.

Included are 500 listings from throughout the United States for services from day schools and residential schools, remedial/tutorial services, speech and language specialists, counselors, visual training specialists, and others.

IMPACT OF TAX REFORM ACT ON DISABLED PERSONS. Free brochure, available from state and local affiliates of the National Easter Seal Society or by writing to the national office at 2023 W. Ogden Avenue, Chicago, Illinois 60612. Self-addressed, stamped envelope must be included.

Language Used or Used Language?

Ron Bourgea

The National Council of Teachers of English conferred upon the National Aeronautics and Space Administration its 1986 "Doublespeak Award" (UPI, *The Washington Post*, November 23, 1986) for this verbose monstrosity: "The normal process during the countdown is that the countdown proceeds, assuming we are in a 'go' posture, and at various points during the countdown we tag up the operational loops and face to face in the firing room to ascertain the facts that project elements that are monitoring the data and that are understanding the situation as we proceed are still in the 'go' direction."

Well, yes. . . .

But, then, ah. . . .

Gee, I don't know now. . . .

Notwithstanding this leviathan catharsis, I wonder, in more strict and direct obfuscation, if the Council did not err in assigning a paltry 3rd place to the Defense Department's amplified rendition of the laconic description of "a nut" as a "hexiform rotatable surface compression unit"?

Superabundance. Sue these words for nonsupport.

• "... useful and functional systems" are doubly more efficient than useful or functional systems since they have to be conceived as "useful and useful systems" or "functional

and functional systems."

• "Knowing how to respond to opportunities *that present themselves* comes with practice." There is no response, not even with practice, to opportunities that do not present themselves, *ergo*, "Knowing how to respond to opportunities comes with practice."

• "... establishing *requirements* and *regulations* . . ." Webster's tells us that a regulation is a rule, ordinance, or law and that a requirement is something obligatory. Rules, ordinances, and laws are obligatory. *Ergo*, this author should be required to remove one of his terms.

• "... a . . . questionnaire was distributed . . . to *known* handicapped workers." I am elated that they didn't distribute them to *unknown* handicapped workers.

Elongationitisism. The simple form is preferred.

. . . the passage of time—the future; the family unit—the family (a "unit" is a group "distinguished from others" and, as such, the family is a unit which gives it sufficient descriptorial unity if not always equanimity and harmony of function.); handle in a priority manner—handle as a priority, with priority handling; out of the—from; in so doing—thus; role

performance—function; involved in the care-giving system—involved in treatment; converge around—center on.

Pastiche.

• "Appropriate counseling and guidance are needed as part of the curriculum planning and especially in preparation for transition." Faults at many levels make this sentence weak and confusing.

First, counseling is guidance.

Second, since curricula are planned by teachers, this sentence says that the teachers need the counseling even if we are indulgent enough to know that the author means that the provision for counseling students should be written into the curriculum.

Third, why "appropriate"? Would inappropriate counseling be *needed*? That "good" counseling is needed is implicit in the simple statement. Using these types of inappropriate words is like providing a person two glasses for a drink of water.

Fourth, the sentence is mixing apples and oranges in its organization: The teachers are understood subjects of the first term and the students of the second. Yet, we know that the author is only concerned with the students. It needs to be rewritten as two sentences or restructured more simply.

• "... Outside their immediate home environments." Home is where you hang your hat, says the cliché, and, therefore, it has quite sufficient and inherent immediacy. Perhaps the author wants to say, "Immediately outside their home environments," which is a new meaning.

• In *Through The Looking Glass*, Lewis Carroll turns from obfuscatory writing (which he pursued in *Alice In Wonderland*) to bureaucratic delivery. One might say, "from syntactic fulmination to methodological annihilation."

The White Queen is chiding Alice. She could have said: "You must have faith," but chooses the long, bureaucratic way around the statement: "I daresay you haven't had much practice. . . . When I was your age, I always did it for half-an-hour a day. Why, sometimes I've believed as many as six impossible things before breakfast. . . ."

The point-muddy counterpoint argument and denouement are exemplified in a conversation between Tweedledum and Tweedledee. What a positively negative device to make the negative look positive:

"I know what you're thinking about," said Tweedledum; "but it isn't so, nohow."

"Contrariwise," continued Tweedledee, "if it was so, it might be; and if it were so, it would be; but as it isn't, it ain't. That's logic."

• Dennis the Menace (Hank Ketcham's cartoon character) is speaking to his friend, Joey: "And another thing about school is they learn you how to speak gooder English." The humor in his assertion, of course, comes in our knowledge of the correct rendition: "And another thing about school is they learn you how to talk more better English."

Mr. Bourgea is former editor, *American Rehabilitation*.

AR Audio Cassettes Now Available

Taped copies of *American Rehabilitation* are available to blind and physically handicapped people through regional offices under the National Library Service for the Blind and Physically Handicapped. Contact your public library for the location of the regional library which serves your state.

TOPIC OF STATE

Virginia VR Program Focuses on Long-Term Mentally Ill People

The Virginia Department of Rehabilitative Services (DRS) and the Virginia Department of Mental Health and Mental Retardation (DMHMR) have agreed to operate a specialized program to vocationally rehabilitate long-term mentally ill Virginians.

The effort is in response to a \$750,000 appropriation to DRS from the Virginia General Assembly for each year of the 1986-88 biennium to address the need for strengthening and expanding employment services for this population.

The agreement, which encompasses a broad range of cooperative ventures, also addresses programs for the mentally retarded and substance abusers, to strengthen service delivery and avoid duplication of effort.

According to Secretary of Human Resources Eva S. Teig, over the past several years, the needs of the long-term mentally ill have become more evident. A Joint Legislative Audit and Review Commission reported in 1985 that in Virginia there were more than 18,000 chronically mentally ill people, most of whom were adults and unemployed.

The objective for assisting long-term mentally ill people is to develop and implement a program to provide vocational rehabilitation services to about 250 people during the first six months. Of this number, it is projected that 100 will obtain or maintain employment or demonstrate employment related functional gain.

To accomplish the goals of the new program, 10 sites throughout Virginia

have been selected where specialized DRS counselors will be housed in day support and psychosocial clubhouse programs operated by local community service boards.

Referrals to the program will be made to DRS by staff of the community service boards from among active day support program participants.

Illinois Establishes Technical Aids Center

Two Illinois state agencies—the Department of Rehabilitation Services and the Department of Mental Health and Developmental Disabilities—have granted \$110,000 for a technical aids center that will explore hi-tech applications to problems facing severely disabled people. The new center will provide the means for greater independence and improved accessibility through computers and assistive devices.

The grant was awarded to the Committee on Personal Computers and the Handicapped to establish a technical aids center in the Illinois Childrens School and Rehabilitation Center in Chicago.

The new center will provide evaluative services, peer counseling and advanced technology for the development of assistive devices to increase self-sufficiency at home and in the workplace for severely disabled people.

The center will provide peer-to-peer counseling and the exchange of information between those who have already discovered ways of using computers and hi-tech equipment in their home and work routine.

Illinois' technical aids center will serve as a model for other states in the use of computer technology adapted for use by severely disabled people.

Indians

(Continued from page 5.)

elderly Indians, the second on urban and reservation Indians.

If disability were to be associated with the aging process, the definition of an older Indian may be different from that of an older non-Indian. According to the National Indian Council on Aging, urban Indians 55 and older present impairment levels comparable to non-Indian elderly 65 and over; rural Indians 45 and older present impairments comparable to non-Indians 65 and older. The 45 and 55 age groups represent middle and upper middle age groups in the population at large. These data indicate that Indians exhibit a high incidence of chronic impairments early in life. Since impairment leads to economic loss, contributing to deterioration in the quality of life for the individual and his family, these differences become critical in planning rehabilitation strategies with Indians. As researchers, we would want to know the underlying reasons for these differences, then we would do something about them. As planners or managers, we would want to know where best we could invest our resources to effect a change in this pattern. Knowing that slightly more than 50 percent of the Indian population is below 22 years of age, we might decide to place heavy emphasis on the very young (prevention of disability in later years) and on the young handicapped to ensure that their disability does not result in secondary and tertiary disabilities. Because we are sensitive to the population status and cultural axioms, our actions would be consonant with the needs of Indian societies. They would also be relevant.

24 With our knowledge of Indian populations' mobility, citing the second

example, we might decide to split our mental resources two ways: concentrating both on reservation and urban handicapped issues. We would do that because we are driven, first, by an ethic that tells us that cultures represent the essence of human creativity, are unique and therefore should be preserved, and second, by our humaneness to serve the urban Indian, the semi-aculturated, the destitute. In essence, we are challenged by two Indian societies that present divergent sets of diseases and handicapping conditions and by two disparate support systems: the tribal and the urban. Our ethic and humaneness, furthermore, would lead

or recommendations. Ultimately, the aim is to reach consensus on certain issues and develop recommendations for action. Under each issue I present a series of questions which I feel are relevant to the topic. Within their context I hint at possible solutions or recommendations.

Issue 1. The missions and goals of the various agencies which serve or purport to serve the handicapped Indian are not fully implemented at national and local levels.

Relevant Questions:

1) To what extent are Indian tribes and communities exposed to agency missions and goals? Is there need for research and dissemination in this

Indian societies are undergoing constant and perhaps more rapid changes than other segments of the larger population.

us to two sets of laws: one governing tribal members, another governing Indians as citizens of the U.S. Quickly, we would come to the realization that we need two planning strategies, one for reservation Indians, and another for urban Indians. Knowing our population status would allow us to plan carefully and appropriately.

Issues in Service to Handicapped Indians

Because the topic of this paper is complex, I have elected to deal with the broadest of issues that might have some future impact on an overall plan embracing the general goals and acceptable procedures of a governmental body. This approach, I feel, is consonant with the observations and recommendations of the National Council on the Handicapped and with current legislation. The issues which I present are nothing more than points of debate or controversy whose purpose is to stimulate discussion rather than present solutions

area? What should be the foci and targets of this research and training? Whose responsibility is it to support these activities, if indeed they are needed?

2) Are current missions and goals of agencies consonant with tribal missions and goals? In the absence of tribal missions and goals, whose responsibility is it to develop these and to coordinate them with those of federal and state agencies?

3) Policy- and decision-makers are often unaware of the role-relationship between the Federal Government and Indian tribes and communities, and between the latter and states. What methods can be devised to reach this level of bureaucracy?

4) Providers at all levels may not be fully aware of handicapped Indian needs. What methods can be devised to ameliorate this situation? What role can the Council of State Administrators of Vocational Rehabilitation or the National Association of State Boards of Education, among others,

play in ensuring service providers' awareness of these needs?

5) The piecemeal development of programs and services to handicapped Indians reflects an absence of coherent policies regarding services to this group. Coherent policies eliminate unhealthy competition, ensure equitable distribution of pecuniary and human resources, and set the stage for the evolution of viable programs that can meet the needs of all handicapped Indians. Ingredients of coherent policies include: joint planning; local, regional, and national oversight committees; Native Americans on policymaking committees; and tribal demonstrable commitments to handicapped Indians. Whose responsibility is it to develop coherent policies regarding services to handicapped Indians? Should it be the Congress? The Cabinet? Indian leaders working with departmental or agency heads? Or, should the National Council on the Handicapped, working with Indian leadership, place this issue on its agenda, first for analysis, then for issuance of recommendations to the Subcommittee on Select Education in the House of Representatives and the Subcommittee on the Handicapped in the Senate?

Comment: No single federal or state agency can be blamed solely for problems arising from lack of coordination or implementation of policies or programs. According to the National Council on the Handicapped, "policy development . . . occurs at many levels and in many ways throughout [a] system. When Congress creates policy by developing legislation, it draws on many sources . . . Congress often creates programs that are implemented by the Administration, [the guiding force being the legislation]. Administrative staff [use this to develop regulations, which

Quickly, we would come to the realization that we need two planning strategies, one for reservation Indians, and another for urban Indians.

eventually become] operating program guidelines . . . [Legislation and regulations] provide the legal basis for [a] program [which] essentially reflect the functional, separate-track orientation of the development process." [Although Congress has made strides in tracking and coordinating legislation that affects handicapped people], "program implementation is greatly affected by the amount and quality of attention it receives from top administrators [and] benign neglect can stifle a program no matter what the official policy [is]."

Issue 2. Comprehensive care is difficult to achieve for handicapped Indians because of the insularity of the service delivery systems, the dearth of indigenous habilitation and rehabilitation manpower and the absence of appropriate assessment tools.

Relevant Questions:

1) The archipelagic philosophy within delivery systems poses obstacles to the delivery of comprehensive medical, habilitational and rehabilitational services to Indian handicapped. Because this is the most vulnerable of all populations, with the broadest range of service needs, such a philosophy tends to attenuate rather than enhance concepts of comprehensive care. Viable comprehensive care results from agency coordination, a complex issue which is not amenable to easy resolution in the near future. Since many agencies, particularly at the state levels, follow their own regulations and procedures and make decisions independently, what strategies, in the short range, can be developed to ensure that these agencies have Indian input which

would further the cause of the Indian handicapped? In the long range, what strategies might be developed to ensure, first, that the top levels of bureaucracy are aware of discrepancies in services to the Indian handicapped and, second, that modifications in current policies are needed to encourage state and local agencies to cooperate with Indian tribes and communities in behalf of the handicapped Indian?

2) Assuming the existence of barriers to services to handicapped Indians, what is the feasibility of designating a single federal agency to coordinate federal and state policies regarding the handicapped Indian? Can a non-federal agency or organization (including a non-Indian organization), working with Indian leadership, be designated as coordinator of these policies? What role can the National Council on the Handicapped or the National Institute on Disability and Rehabilitation Research, through its Interagency Committee on Research, play in the coordination of or in assisting in the coordination of these policies?

3) Indian self-determination cannot be fully implemented in the absence of indigenous manpower or manpower that is specifically trained and prepared to function within the context of Indian cultures and languages. Failure to develop this manpower might not only jeopardize realization of this concept, but might create conflicts that would hinder rather than enhance Indian self-determination. Indigenous manpower, moreover, is best suited to develop indigenous models of services.

The piecemeal development of programs and services to handicapped Indians reflects an absence of coherent policies regarding services to this group.

- Is there need for earmarking and/or expanding of resources for the preparation of indigenous and nonindigenous manpower? If this need exists, what agencies and resource pools should be involved and tapped?

- Should funds be allocated specifically to train employed and newly employed medical, habilitation and rehabilitation personnel involved with handicapped Indians? How can this training be best accomplished?

- Student internships on Indian reservations expose potential manpower to a range of experiences in Indian cultures and sensitize communities to needs of handicapped Indians. Although such internships are encouraged by certain institutions, the desired effect, namely, increasing awareness of handicapped Indian needs, has not been achieved. How can professional organizations be more involved in placement of students in Indian communities? What incites trainees to serve internships in Indian communities?

- Assessment of handicapped Indians is complex, controversial and has been addressed by various agencies, institutions and Indian groups. Although professionals working with handicapped Indians today are more aware of this issue than in the past, research and training in this area are sorely needed. But due to the multiplicity of Indian cultures, languages, value systems, and beliefs, a piecemeal approach may not be the most viable. Any attempt at resolution must be guided by Indian leadership, professionals and representatives of federal agencies.

In this context, is there a need for convening a national, multidisciplinary and multiagency conference on this important topic?

- A retrospective evaluation of services to handicapped Indians might give insight into the relative success of delivery systems in serving both urban and reservation Indians. Such an evaluation might determine: the relative availability of services to various client groups; the timeliness of intervention; the quality and quantity of services provided; the appropriateness of these services; the relevancy of services to clients' needs; and the effectiveness and cost of provided services. If appropriate and needed, might this national evaluation effort be conjointly supported and funded?

Comment. Handicapped people in general have diverse needs that can tax the capabilities of the most efficient and progressive of delivery systems. The boundaries of these needs may be limitless. They may be medical, educational, social, psychological, vocational, and avocational. Even within the context of these, there may a spectrum of needs unique to each handicapping condition. Handicapped Indians reflect these needs. But while handicapped people in general have the potential of being served by current, albeit somewhat deficient, delivery systems, the Indian handicapped are faced with insurmountable obstacles that have little or no relationship to the viability or nonviability of existing delivery systems.

Issue 3. There exists no unified effort directed toward prevention, identification, treatment, and followup of

handicapping conditions in Indian populations.

Relevant Questions:

1) The second session of the 99th Congress addressed the issue of needs of handicapped Indians. In addition, in its *Report on Reauthorization of the Rehabilitation Act* to the House Subcommittee on Select Education, the National Council on the Handicapped voiced its concern "that too few tribes and too few reservations benefit from [rehabilitation services]." In the light of these activities, should there be a concerted effort to encourage the Congress to: ensure that the needs of handicapped Indians receive the attention they deserve; and that funding be made available to ensure, first, that handicapped Indian needs be well defined and, second, once defined, they be attended to by the various delivery systems? What strategy should be developed to ensure the success of such an effort?

2) Prevention of disabilities has been identified by the National Council on the Handicapped as a major priority for action by the Congress. Considering the high prevalence of handicapping conditions in the Indian populations, what possible recommendations can be made to the Council or to Congress to ensure that legislation reflect the special needs of Indians?

3) Current treatment and followup of handicapped Indians is an issue that deserves the immediate attention of agency heads and service providers. A focus on elimination of barriers to services, particularly to those with the most urgent, critical and broadest of needs, is essential to the welfare of populations already facing high levels of poverty and unemployment. A structured approach to sharing information and resources would facilitate the movement of pa-

tients/clients through delivery systems, but this requires action on the part of agency heads as well as allocation or redistribution of resources. What agency heads should be involved in this issue? Might the high cost associated with serving the most severely injured be incentive enough for the IHS to seek dialogue with other federal agencies?

Comment. One of the major obstacles impeding the evolution of a unified effort directed at prevention and treatment of handicapping conditions among Indians is the lack of information on these conditions. Although this may be attributed to various causes, the most important relates to definition of the condition by primary service providers and to jurisdictional disputes which tend to submerge the needs of handicapped people under their weight. Considering the demographic changes that are taking place today in Indian populations, an early resolution of this issue may lessen its complexity in future years.

Issue 4. The network of research and training centers supported by federal agencies and the private sector is not now serving the needs of handicapped Indians.

Relevant Questions:

1) Considering the limited human and financial resources of the existing Native American Research and Training Centers, it is not anticipated that these centers can or will respond to the range of handicapped Indian needs. Because these are heterogeneous populations, presenting disparate patterns of disease and handicapping conditions, no one center (or two, in this instance) can respond appropriately to these needs. Should there not be an effort on the part of funding agencies to encourage centers to engage in issues that relate to handicapped Indians?

2) What role can Indian tribes and communities play in encouraging nearby institutions to use federal and state resources to solve handicapped Indian needs? (Existing centers have the capacity to expand their research and training activities through the mechanism of "field initiated projects" or through use of non-federal funds. Coaxing from tribes and communities would first reflect interest in handicapping conditions and, second, create an environment for cooperation. In addition, the proximity of these tribes and communities to these centers would ensure easy and timely dissemination of knowledge.)

3) The mechanism for interagency cooperation on research and training issues affecting the handicapped is already in place. The National Institute on Disability and Rehabilitation Research is the agency responsible for coordinating these activities. Might it not be prudent for Indian organizations and leadership to explore, through the Institute, interagency (research and training) cooperation in behalf of handicapped Indians?

4) Although the leading causes of death among Indians has changed over the past 30 years, social or behavioral causes of mortality are on the increase. Notwithstanding these changes and developments, however, certain diseases thought to have been on the decline only 5 years ago, are increasing at a steady rate. According to the IHS Division of Program Statistics, pediatric visits for acute otitis media, conjunctivitis and respiratory allergy have shown increases of 41.7 percent, 40.4 percent and 30.3 percent, respectively, since 1981. Among adults, the major category, nervous system and sense organ diseases showed an increase of 51.4 percent. Other categories like musculoskeletal system diseases; pregnancy,

childbirth and puerperium; and the endocrine, nutritional and metabolic disorders showed increases of 29.9 percent, 28.8 percent and 25.1 percent, respectively. In light of the facts that there have been no large-scale epidemiologic studies of overall Indian health and that certain diseases are on the increase, should not the Public Health Service (through its Centers for Disease Control and the National Institutes of Health) be involved in assessing the health of Indians, focusing especially on those diseases that have potential handicapping sequelae?

Comment. Research and training centers have been and continue to be a major force in effecting positive change in the status of handicapped people since 1962. These centers, however, have had no noticeable impact on Indian communities. It is only within the past 5 years that the National Institute on Disability and Rehabilitation Research, which coordinates a national network of about 30 Research and Training Centers, became directly involved in Indian issues.

Other agencies, following the model of the institute, have developed centers which combine research and training with service to specific target populations. A need for involvement of these centers in Indian issues would seem appropriate, considering the range of complex problems that Indians face today.

Issue 5. Tribal, community and organizational involvement in issues related to the handicapped Indian is neither pervasive nor coordinated nor effective.

Relevant Questions:

1) More than a decade ago, the Rehabilitation Services Administration celebrated its 50th anniversary. Today, a handful of Indians are served by the network of state

vocational rehabilitation agencies. A decade ago, handicapped children were given the opportunity to strive toward self-sufficiency. Today, many Indian handicapped children fall through the safety net of P.L. 94-142: those not in BIA schools, those who drop out of those schools, and those who are below age 5 are the most vulnerable. What is the status of communication between Indian leadership and state education agencies, and between this leadership and other state and federal agencies? To what extent are service providers involved in training indigenous personnel? And to what extent are Indian parents of handicapped children, Indian communities, and Indian leadership involved in developing advocacy leadership at local, community and tribal levels? What are the advocacy roles and responsibilities of states and the Federal Government?

2) If the assumption that no group in this country is less informed on matters of law or services than Indian communities were to be accepted, whose responsibility is it to communicate information to Indian communities? What is the most appropriate vehicle to communicate information to these communities? What resources are needed to ensure that the desired information reaches the level of the handicapped or the family? Is there an Indian model of information exchange? Of advocacy?

3) Needs of handicapped Indians are often juxtaposed against high unemployment, poverty, isolation, disease and mortality, poor housing and sanitation, and low levels of education achievement—in essence, an environment that is neither sensitive to handicapping conditions nor conducive to the development of programs responsive to these conditions. A “bronco busting” strategy is needed. What are the ingredients of

such a strategy?

Comment. There is general agreement among planners, managers and service providers that advocacy at local levels can be a powerful agent in effecting change for handicapped people. It can be educative, by preparing parents and community members to accept the handicap and to work with handicapped persons to achieve goals of self-sufficiency. It can pool resources, thereby facilitating planners’, managers’ and providers’ tasks of implementing effective service delivery systems responsive to needs of specific communities. It can also be a potent force, generating information that reflects dynamic and unique needs of communities and provides tribal leaders and legislators with the necessary tools to effect positive change.

Handicapped Indians cannot benefit from a truncated approach to advocacy in their behalf. To be effective, advocacy must emanate from communities, from parents, from the handicapped; it must be all encompassing, defining and including the broadest range of handicapping conditions and needs. In advocating for handicapped people, planners, managers, service providers, and organizations must ensure that the ingredients of appropriate advocacy are adhered to, and that advocacy goals are consistent with those of the handicapped, the parents, the communities and the tribes.

Summary and Conclusions

Policy and policy coordination at federal and state levels are not subjects that are amenable to facile dissection, examination, reconstruction, or casual discourse. Nevertheless, since policy and its coordination affect the lives of citizens, they can neither be forgotten nor avoided. While legislation affecting handicapped people clearly delineates the

responsibility of the nation toward ameliorating the special needs of handicapped citizens, realization of that responsibility (*i.e.*, the rights of these citizens to equality of opportunity and self-sufficiency) has been hindered not only by the patchwork of legislation that was designed to protect these citizens, but by restrictive and uncoordinated policies emanating from this legislation. Because of their special relationship with the Federal Government, their unique cultural and linguistic heritages, and their desire for self-determination, Indians have been the most adversely affected by the complexities, inconsistencies and fragmentation in the laws and the policies that emanate from these laws. A focus on their special needs, therefore, would not only be timely, but would be consistent with the national goal.

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The full text of this paper, presented at the Native American Rehabilitation National Symposium in Phoenix, Arizona, September 12, 1986, including bibliographic references, sources and notes will be provided to readers upon request. Address inquiries to author c/o: Sensory Disabilities Program, Indian Health Service, 2401 12th St., NW, Albuquerque, NM 87102. Telephone: (505) 766-1233.

Opinions expressed in this document are those of the author and do not necessarily reflect the views of the Indian Health Service, Department of Health and Human Services, Department of Education, or those of other individuals or institutions which provided information for development of this document.

Randolph-Sheppard

(Continued from page 9.)

do not need training and are not required to be imaginative and talented because their businesses need not be lucrative any way.

The challenge of eliminating this stereotype by replacing it with a big business view will also remove barriers that will allow the recruitment of aggressive, talented blind people, enable federal and state resources to be employed, highlight training as a priority, and promote the aggressive seeking of new business locations.

The Challenge of Managing for Expanding Business Opportunities. To provide career opportunities through Randolph-Sheppard, state licensing agencies must modify their priorities, policies, and procedures in recruiting, training, federal/state investment, and marketing. State program expansion should be integrated with the state licensing agencies' maintenance plan of training vendors who are already in the program, upgrading and refurbishing facilities, introducing program efficiencies (such as centralized purchasing of equipment, stock and services; computerized accounting and reporting systems; and other measures) to reduce costs.

Central to recruitment is the distribution of positive information on Randolph-Sheppard that destroys stereotypes. This information should be distributed to VR counselors and highlighted in organizational publications. It should also be used in school programs that enroll blind people and in their handouts as well as in orientation sessions with blind people who apply for VR services.

Client information should be a goal of each agency. Only then can clients make informed career choices about Randolph-Sheppard. Counselors need to record the client responses to this information.

Because of increased knowledge demands needed by managers, pre- and in-service training in business administration and elementary and advanced food services is essential. It is becoming more apparent that a short-term pre-service training program, followed by an apprenticeship, is not sufficient preparation in managing a moderate-sized business. State licensing agencies need to work with the VR program to identify college and graduate students who may be unemployed, inform them of the program, and assist them to enroll in training programs conducted by the agency or by post-secondary schools or other training programs. Business operator training is such a critical issue that it is receiving priority attention by the Randolph-Sheppard Committee of the National Council of State Agencies for the Blind. This committee is developing a needs assessment of state, regional and national training options for advanced food preparation and large scale cafeteria management.

Enlarging the federal/state investment to focus on increasing the number of facilities is essential. The FY 1985 *Annual Report* on Randolph-Sheppard indicates that the national average cost for establishing a snack bar or other facility is \$26,365; cafeteria is \$37,781; and a vending machine facility is \$20,171. Table 2 displays the cost of such facilities by state. With these cost estimates as a guide to planning, a state can easily determine a cost effective mix of business facilities in program resources. A state can develop a plan to show how many new businesses can be established at an annual expansion rate of 5, 10, 15 or some higher percentage. The development of an expansion plan is a necessary component of a state licensing agency's program responsibility. It sets the

stage for marketing the program in the area of public opinion or to federal or other property management officials.

While RSA has an initiative to expand the number of businesses on federal property by providing technical assistance to those agencies with few facilities operated by blind persons, state licensing agencies need to implement a marketing plan for such business on state, county, and local property. Moreover, community colleges, other post secondary schools, mid and large sized industries all provide potential sites for food and other business services.

RSA has attempted to improve Randolph-Sheppard by establishing training and technical assistance objectives as a part of its management improvement goal. In FY 1986, each of the 10 regions conducted training programs for state agency officials and business counselors, based upon materials developed by the West Virginia Research and Training Center. This training will continue in FY 1987. Each RSA regional office has conducted at least one state program review in FY 1985 and also in FY 1986 to identify problems and provide technical assistance.

In FY 1987, an analysis of these program reviews will be undertaken and a national report, with recommendations for assisting states to improve their programs, will be prepared.

To stimulate increased business opportunities on federal properties, RSA, with the cosponsorship of the General Services Administration and the National Council of State Agencies for the Blind, held a training conference in February 1986 for federal property managers from 35 agencies and departments. To increase the number of business opportunities, RSA plans to develop

Table 2
Cost Establishing New Facilities and Maintenance/Replacement Equipment, FY 1985

	Establish New Facilities			Maintain/Replace Equipment		
	Number	Total Cost	Aver Cost	Number	Total Cost	Aver Cost
U.S. Total	149	\$3,890,329	\$26,110	3,215	\$8,749,083	\$2,721
Region I	2	209,496	104,748	138	103,330	749
Connecticut	0	—	—	36	32,120	892
Maine	0	0	0	13	12,050	927
Massachusetts	2	209,496	104,748	53	23,672	447
New Hampshire	0	0	0	18	5,001	278
Rhode Island	0	0	0	15	23,046	1,536
Vermont	0	0	0	3	7,441	2,480
Region II	5	55,122	11,024	183	265,830	1,453
New Jersey	4	47,304	11,826	65	107,765	1,658
New York	1	7,818	7,818	114	157,745	1,384
Puerto Rico	0	0	0	4	320	80
Virgin Islands	0	0	0	—	0	0
Region III	10	237,216	23,722	420	948,198	2,258
Delaware	1	9,627	9,627	12	34,061	2,838
Washington, D.C.	1	74,346	74,346	71	240,781	3,391
Maryland	0	0	0	92	103,767	1,128
Pennsylvania	6	67,243	11,207	137	211,151	1,541
Virginia	2	86,000	43,000	84	289,671	3,448
West Virginia	—	0	0	24	68,767	2,865
Region IV	68	1,491,395	21,932	867	2,654,326	3,062
Alabama	16	259,195	16,200	146	414,264	2,837
Florida	13	391,896	30,146	203	927,983	4,571
Georgia	3	41,714	13,905	123	202,320	1,645
Kentucky	5	45,115	9,023	47	350,414	7,456
Mississippi	3	113,216	37,739	55	177,667	3,230
North Carolina	4	85,462	21,365	69	123,301	1,787
South Carolina	13	336,403	25,877	90	101,644	1,129
Tennessee	11	218,394	19,854	134	356,733	2,662
Region V	27	636,503	23,574	547	1,268,294	2,319
Illinois	14	337,068	24,076	132	302,986	2,313
Indiana	1	7,997	7,997	37	22,469	607
Michigan	3	12,357	4,119	113	157,263	1,392
Minnesota	3	121,046	40,349	88	271,201	3,082
Ohio	6	158,035	26,338	145	459,668	3,170
Wisconsin	0	0	0	32	54,707	1,710
Region VI	18	638,541	35,474	406	666,992	1,643
Arkansas	1	17,006	17,006	71	130,995	1,845
Louisiana	4	270,415	67,604	116	126,219	1,088
New Mexico	—	0	0	24	46,695	1,946
Oklahoma	3	127,660	42,553	72	166,518	2,313
Texas	10	223,460	22,346	123	196,565	1,598
Region VII	5	55,425	11,085	113	328,131	2,904
Iowa	1	32,649	32,649	32	125,226	3,913
Kansas	2	18,608	9,304	28	45,724	1,633
Missouri	2	4,168	2,084	36	126,081	3,502
Nebraska	—	0	0	17	31,100	1,829
Region VIII	2	98,200	49,100	85	99,504	1,171
Colorado	2	98,200	49,100	47	64,054	1,363
Montana	0	0	0	8	11,504	1,438
North Dakota	0	0	0	—	0	0
South Dakota	0	0	0	11	13,042	1,187
Utah	0	0	0	18	3,695	205
Wyoming	0	0	0	1	7,209	7,209
Region IX	8	433,464	54,183	369	2,143,536	5,809
Arizona	3	125,000	41,667	47	87,938	1,871
California	2	275,895	137,947	271	1,979,849	7,306
Hawaii	3	32,569	10,856	31	21,558	695
Nevada	0	0	0	20	54,191	2,710
Region X	4	34,967	8,742	87	270,942	3,114
Alaska	0	0	0	—	0	0
Idaho	2	20,069	10,034	17	57,646	3,391
Oregon	1	4,086	4,086	27	126,283	4,677
Washington	1	10,812	10,812	43	87,013	2,024

a handbook for property managers that will provide step-by-step guidance on planning and establishing and supporting a Randolph-Sheppard business in public and private buildings. This handbook can be the basis for training and consultation programs with officials interested in establishing concessions in their facilities.

Summary and Conclusion

The Randolph-Sheppard program continues to expand, providing responsible business opportunities and significant income for blind people. In this, the 50th year of the Randolph-Sheppard program, no wonder the program's cosponsor, Jennings Randolph, takes pride in the fact that over 20,000 blind people have creatively employed their talents as business operators. Like other businesses which have been buffeted by inflation, recession, competition, and a changing business climate, those involved in the federal, state administration of the program, licensed blind operators, and property managers need to work together to tune the program to the needs of customers and foster increased expansion in the sales of current and new facilities. It is fitting that we now take stock in the program's accomplishments and rededicate ourselves to those choices essential to expanding it, thereby enabling any qualified blind person to conduct business commensurate with his or her imagination and talent.

Mr. Avery is Director, Division for the Blind and Visually Impaired, RSA.



Technology

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ministration supported the Thirteenth Institute on Rehabilitation Issues, which is developing a document, "Rehabilitation Technology," scheduled for publication in early 1987. It includes a chapter on "Policy Issues in Providing Rehabilitation Technology Services: A Guide for State Rehabilitation Administrators and Policymakers," as well as the results of a national survey of rehabilitation technology utilization in state vocational rehabilitation agencies conducted by the Rehabilitation Engineering Program at the University of Wisconsin-Stout. There are several chapters devoted to information and resources necessary for technology case management by counsellors.

- The Rehabilitation Act Amendments of 1986 authorize the establishment and support of Rehabilitation Engineering Research Centers in Connecticut and South Carolina to "demonstrate and disseminate innovative models for the delivery of cost-effective rehabilitation engineering services to assist in meeting the needs of, and addressing the barriers confronted by, individuals with handicaps." ⁷

RESNA has been fostering the development of technological services and training of related personnel for several years. In 1985, two special interest groups were formed; one focuses on service delivery practices, the other on service delivery policy and organizational issues. These groups involve the majority of rehabilitation technology service providers in North America. RESNA actively encourages liaison between agencies and organizations involved with technology applications, and acts as a catalyst and information center for related issues.

Emerging Issues and Trends

The new issues surfacing in rehabilitation technology service delivery are the same ones that are appearing across the board in health care and rehabilitation—cost/benefit, quality assurance, outcome measurement, and liability exposure. These are tough topics, tied to broader economic, policy, and resource allocation questions. Such issues will not be settled by simple answers or formulas.

Certification and Training

Certification is often seen as a solution to some of the issues raised above. Though it may provide us with one tool, it would be naive to expect it to be the total answer. Addressing technology needs is not the sole territory of any one professional group, and the issues related to qualifications and certifying are bound to raise turf issues. There are also questions about the scope of certification activities. Who should be certified? The providers? The facilities? The team? The "shoppers?" And by whom? It would indeed be unfortunate to impede the development of this emerging field by closing the doors too tightly just as it is coming of age. However, some type of standards for performance must be established, and it is likely that some type of certification process will emerge in the next few years.

With or without immediate certification, increased training and continuing education opportunities activities must be developed. Two kinds of training activities are needed: one for the vendors and providers of service, another for the "shopper," the case managers, disabled consumers, and the purchasers of service.

Training for providers is beyond the scope of this article, but the "shopper" concept promises to provide opportunities for developing

What we are now generically calling "rehabilitation technology services" have been provided under various names for many years.

training programs that can be used by professionals who are doing case management and by disabled consumers. The skills that the counsellor develops can and should be shared with clients. Both groups of people need to know how and when to use technology services and related resources. Disabled people will need this type of life skill if they are to be informed consumers. Both groups need to learn to work with technology service providers and to maintain their participation in the process. This is truly an area where educational activities do not need to be separately structured for either the professional or the consumer.

Summary

"The last 10 years have been exciting times in the field of applied technology for disabled individuals. From a time where there were very few devices, we now have a situation where there are more devices than anyone can keep track of without the help of a computer. Research and development efforts have increased; service delivery is beginning to change from an art to a science; and we can begin to exchange ideas about how and why we have succeeded and failed." ⁸

It is indeed exciting and encouraging to see the possibilities that technology holds for individuals with disabilities and to be a part of the incorporation of technology services into comprehensive rehabilitation efforts. Planning, cooperative efforts between public and private sectors and ongoing collaboration among all players will be the keys to developing and implementing standards of excellence to ensure that disabled

people will be able to obtain the technology support systems that enable full participation in American life.

Ms. Enders is the project manager for the Rehabilitation Service Delivery Program at the Electronic Industries Foundation Rehabilitation Engineering Center in Washington, D.C.

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PWI

(Continued from page 14.)

and social history, testing results, and an assessment of the individual's strengths are provided to the employer.

Direct quotes from employers identify cost savings, pre-screening of applicants and the available resource pool as primary advantages. Also recognized are reduced turnover, trouble shooter services, and interpretation of government incentives for tax credit. PWI oftentimes provides seasonal solutions to those businesses that experience periodic surges of work.

Many PWI's operate as independent counseling and placement services, but others are associated with rehabilitation facilities which provide a wider range of services. These can include extended vocational evaluation, work adjustment, independent living skills training, and occupational skills training in sheltered workshop settings for employees who may require extensive rehabilitation. Other available services are employee assistance programs, outplacement, and transitional and supported work stations.

Partnership is an often used term describing the relationship between PWI, the public sector, and the business and industrial community. To fully respect the intent of that concept, PWI's recognize the importance of viewing employers as clients of the program and developing services that meet their needs. These services differ from those directed to disabled clients as well as complement PWI's mission to promote employment opportunities for disabled people.

Mr. Goldstein is chairman, International Association of Business, Industry and Rehabilitation.

St. Louis Meeting for Polio Survivors

Over 700 polio survivors, physicians and other health care professionals from around the world will gather at Gazette International Networking Institute's 4th International Polio and Independent Living Conference June 4-7 at the Sheraton St. Louis Hotel to discuss new information about the late effects of polio.

More than half of the estimated conference speakers and participants are people with disabilities, many of whom use mechanical ventilators to breathe.

Ted Kennedy, Jr., and James Roosevelt are the honored guests during the conference banquet, which will celebrate the 10th anniversary of the implementation of Section 504 of the Rehabilitation Act of 1973 and the civil rights of all people with disabilities.

Among the foreign representatives are the leaders of organizations of the disabled in El Salvador, West Germany, Mauritius, South Africa, and Sweden, who will discuss independent living around the world, cultural attitudes toward disability, and appropriate technology and employment strategies for disabled people in developing countries.

The conference will address new clinical and research findings about the muscle weakness, fatigue, pain, sleep, and breathing problems being experienced and management and treatment, such as exercise, weight control and bracing.

For conference registration information, write to: G.I.N.I., 4502 Maryland Avenue, St. Louis, Missouri 63108. Telephone: (314) 361-0475.

Rethinking Architecture: Design Students and Physically Disabled People. Raymond Lifchez. The University of California Press, 2120 Berkeley Way, Berkeley, California 94720. 191 pages. Hardback, \$25; paperback, \$10.95

This text examines an experiment in architectural education at the University of California, Berkeley. In an effort to develop a curriculum that was sensitive to the needs and challenges of disabled people, the author, an architect teaching at Berkeley and a nationally known activist in the disability movement, brought physically disabled people into the classroom as design consultants. By incorporating disabled students into the design process, the author hoped to compel students to examine the cultural biases and fears that color our view of disability and to help them develop insights into the multifaceted lives that disabled people actually lead.

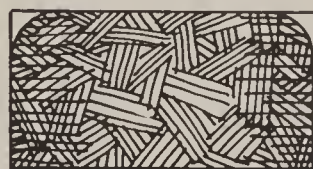
The ultimate challenge was to enable students to see the inadequacy of designs that proceed from uni-

dimensional notions of the standard user and to spark new ideas about how to develop better designs with the disabled user in mind.

Don't Stop the Music. Robert Perske. Abingdon Press, 201 Eighth Avenue South, Nashville, Tennessee 37202. 140 pages. Paperback, \$7.95. Agencies and libraries can get special rates by calling Gail Douglas at (615) 749-6452.

This is the story of two teens with cerebral palsy who become key elements in cracking an auto theft ring. They use their wits and their motorized wheelchairs to capture the thieves and make some interesting friends along the way.

This novel is the second in a series that the author has written for junior and senior high school students. The first, **Show Me No Mercy**, was chosen one of the most outstanding books of the year by senior high students participating in the Books for Young Adults Program.

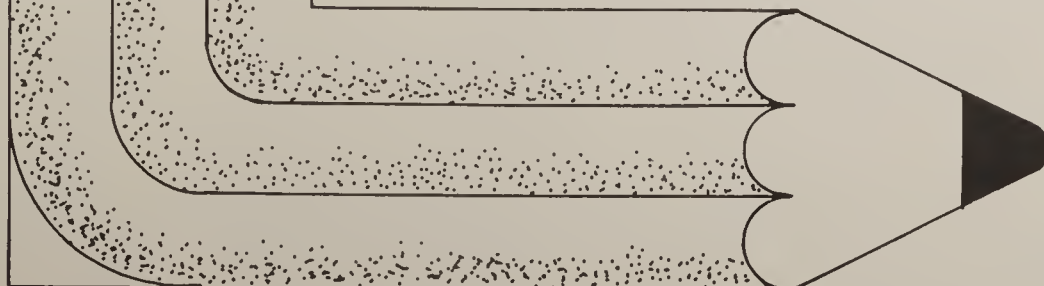


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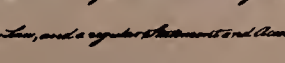
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y-June 1987



10 Years Later

AMERICAN REHABILITATION

April-May-June 1987



COVER PHOTO — Three leaders in the struggle for the signing of the Section 504 regulations: 1. Frank G. Bowe was Executive Director of the American Coalition of Citizens with Disabilities (ACCD) when 504 was signed. Currently he is Chairperson of the Commission on Education of the Deaf. 2. Eunice Fiorito was President of ACCD. Now she is Special Assistant to the Commissioner, Rehabilitation Services Administration. 3. Judy Heumann was Vice President of ACCD. She now serves as Co-Director of the World Institute on Disability.

AMERICAN REHABILITATION

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Section 504: 10 Years Later

Frank G. Bowe, Ph.D., LL.D.

Tuesday, April 28, 1987, is the 10th anniversary of the signing of the first regulations implementing Section 504 of the Rehabilitation Act of 1973. Ten years ago, Joseph A. Califano, Jr., then Secretary of Health, Education, and Welfare (HEW), ended more than two months of consumer demonstrations by signing a rule interpreting what was then the final sentence of the Rehabilitation Act.

The Secretary's signature was eagerly anticipated. Ever since the Congress enacted the statute September 26, 1973, people with disabilities had been waiting to learn what their new rights would be. Expectations were high. Section 504 was sweeping. It applied to virtually every aspect of American life — elementary and secondary schools, colleges and universities, hospitals and social service agencies, public transportation and housing authorities, libraries, and many more. The language seemed to say that the discrimination people with disabilities had encountered in these programs and activities now would begin to fall before the force of law. But as the demonstrations continued, and as HEW delayed action, doubts grew. How real would these rights be, once translated into regulation? Would the long wait be worth it, or would people with disabilities once again be bitterly disappointed?

Finally, on that fateful day in 1977, the Secretary signed a rule. At a press conference that day, the exhausted demonstrators got their first look at the long-awaited regulation. Standing in the

back of the crowded conference room on the seventh floor of the Hubert Humphrey Building in Washington, I felt an overwhelming sense of triumphant calm. The rules, as I read them for the first time, seemed fair, sensible and enforceable.

First Steps

A few days later, Secretary Califano called me to ask that I and the American Coalition of Citizens with Disabilities (ACCD), the organization I represented at the time, join him and HEW in implementing the rules so that they would be fully enforced. And so began what has turned into a continuing effort by government and people with disabilities to translate the turgid prose of federal regulations into transforming changes in the lives of people throughout this nation, people who had almost given up on any hope that their lives would be fulfilling and rewarding.

Today, we have 10 years' worth of perspective from which to look back at that effort and say: What has Section 504 meant?

The 10 years began auspiciously. As I have reported in *Changing the Rules*, people with disabilities throughout the country celebrated the issuance of the regulations. They quickly returned to work, however, as they realized that they would have to play a major role in making the words of the regulation take on meaning in their lives. ACCD and many other consumer organizations mounted large-scale training programs.

In state after state, we mobilized people with disabilities to acquaint them with their new rights, and to teach them how to make these become reality.

Education

The first steps were taken in the area of education. Two years after enactment of the Rehabilitation Act, the Congress had passed P.L. 94-142, the Education for All Handicapped Children Act of 1975. In August 1977, about 4 months after the appearance of Section 504 rules, HEW published final regulations governing implementation of P.L. 94-142; and these new rules fit very neatly with those for Section 504. A persistent problem with the education law had been that several states could decline to participate in the Education for All Handicapped Children Act; because they accepted no federal funds for teaching handicapped children, they would not be bound by the requirements of the law. Section 504 closed that loophole. Every state receives federal funds of some kind or another; acceptance of any of those funds obligates a state to comply with Section 504. The two statutes — P.L. 94-142 and Section 504 — together forced virtually every state to take seriously the requirement that all handicapped children receive a free, appropriate, public education.

Soon thereafter, major progress appeared on the nation's college campuses. Thanks largely to the advocacy of the American Association for the Ad-

vancement of Science, under the leadership of Martha Ross Redden, the country's colleges and universities began the difficult task of making their facilities and programs accessible to people with disabilities. That effort has been remarkably successful. Today, some 7 percent of all college freshmen are students who are disabled.

Throughout the nation, in small colleges and large universities, I have seen amazing progress. Today, a student with a disability who qualifies for admission into a postsecondary program has the opportunity to attend and to receive full services at virtually any public or private college anywhere, and to obtain there the interpreting, housing, transportation and other support services he or she needs. Ten years is a very short time for something that pervasive to take place on thousands of campuses throughout this vast nation. I continue to be astonished at the impact of 504 in postsecondary education. I just wish it were as great in other areas of American life.

No Setback

Scarcely 2 years after the rules were published, we faced what seemed at the time to be a major setback. The Supreme Court handed down a decision on June 11, 1979, that seemed to say that our rights might not be all that we had thought them to be. The case at hand involved a nursing student at Southeastern Community College. Frances B. Davis had claimed that 504 permitted her to be excused from some classes and to receive special treatment in others.

Barely 2 hours after the decision was announced, I had to face the cameras in CBS's Washington studios. Fred Graham, a tough court reporter for "CBS Evening News with Walter Cronkite," asked me again and again if this decision reversed our fortunes. Each time, I responded that it did not. In my

view, Frances Davis had asked for things she did not deserve under the regulation. For that reason, the decision applied to her — and only to her. Our rights were unaffected.

In state after state, we mobilized people with disabilities to acquaint them with their new rights, and to teach them how to make these become reality.

Others were not so sure. A few days after the Cronkite show aired, an emergency meeting of consumer activists was convened in Washington to assess the damage. Many of my colleagues felt that we had been dealt a mortal blow. But as the weeks turned into months, reassurance appeared. HEW announced that it had reviewed the Court decision and found in that decision no basis for any revisions in the rule. Not one word of the Section 504 regulation was changed.

Transportation and Housing

The Davis case turned out to be just the first of many court cases to challenge parts of the lengthy and complex rule. One, based on the Department of Transportation's (DOT) 504 regulation, eventually did harm our cause. The American Public Transit Association (APTA) took DOT to court, claiming that the department's rule was far too broad. The Federal District Court for the District of Columbia disagreed, but an appeals court upheld APTA's claims. Rather than appeal the decision further to the Supreme Court, the department elected to withdraw its Section 504 regulation and to rewrite it. As a result, we are now back to "special efforts" requirements in subway and bus transportation.

I believe it would be a mistake, however, to believe that 504 has not helped us in transportation. In city after city, I have seen major progress. Most

recently, in October 1986, the Congress reaffirmed its intent by mandating that all airlines meet the essential requirements of 504. Housing is one area in which we have had consistent diffi-

culty. The Department of Housing and Urban Development was one of the last major federal agencies to issue rules; and when it did come out with a regulation, its efforts were roundly criticized as too little, too late. Those rules were hastily withdrawn and a very lengthy process of re-writing began. Eventually, the department issued temporary rules; even those were found to be glaring in their gaps and loopholes. As I write today, the department is under increasing pressure to strengthen its language and to issue a final, binding regulation. It is gratifying to see that this pressure comes not only from people with disabilities but also from the Congress and from the Department of Justice, which has overall responsibility to coordinate the efforts of some 91 federal agencies that are subject to 504.

Agency Conducted Programs

In 1978, while amending the Rehabilitation Act, the Congress adopted language requiring federal agencies themselves to follow the same kinds of steps that they expected of their grant recipients. These "agency conducted" programs now were expected to be made accessible to and useable by people with disabilities. At the time, I suspected that some of the Members of Congress who were behind the amendment sought to weaken, not strengthen, Section 504 by their action. Perhaps they anticipated an outcry from federal agen-

(Continued on page 23.)

504 and the Media:

Legitimizing Disability

Robert H. Ruffner

1973: Washington was stunned by the Watergate scandal. Major news stories included the withdrawal of all U.S. troops from Vietnam, the bombing of Cambodia, and the resignation of Vice President Spiro Agnew. As of August 25, there were 153,312 wounded Vietnam veterans. The media gave great attention to the controversial new term "Ms." On September 26, President Richard M. Nixon signed the Vocational Rehabilitation Act, authorizing \$1.54 billion and containing a little noticed section — 504. The "big" news of the President's signing was the fact that he had previously vetoed two rehabilitation bills as being too costly.

Section 504 was born in a turbulent news year. The fact that it was not given considerable news coverage is not unusual. The issues of disability and disabled people themselves were nearly invisible in 1973. "The handicapped" as a term was widely used. The "we/they" syndrome was firmly established. The professional organizations concerned with disability or disabled people were there to "help the handicapped." The disabled consumer movement was in its infancy and, despite the stirrings of "independent living" in Berkeley, and the dynamic and aggressive new groupings of disabled Vietnam veterans, the voice of disability came primarily from professionals. Disability was far from being a legitimate social, economic and political issue.

Disabled people were taking to the talk shows and the newspapers with their issues. The situation changed overnight. One day, it was "helping the handicapped," the next, it was "helping ourselves."

A few months after President Nixon signed the 1973 Vocational Rehabilitation Act, I formed a new office of communications for the President's Committee on Employment of the Handicapped in Washington, D.C. It is from this "bird's eye" perch that I can offer a personal appraisal of 504 and the media. Few people have been involved in disability and media issues from the onset of 504, and in many ways, my work at the President's Committee mirrors the relationship between the media and 504.

The first thing to go was the "we/they" syndrome. I pioneered in advertising campaigns featuring people with disabilities doing their own talking and representing their own points of view. We founded the national magazine, *Disabled USA*, in 1977, and from the beginning the magazine's editors and writers have been consumers. The first editor was Diane Lattin and the most recent editor was Robert Gorski. Disabled writers and their issues came into their own in the pages of *Disabled USA*. This thrust was continued when the President's Committee syndicated writer Bill Kizer nationally. Bill reached millions of readers through daily and weekly newspapers

until his death in 1978.

1977: "Son of Sam" stalked New York. Bert Lance resigned in a White House scandal. President Carter called for "the moral equivalent of war" on energy waste. *Roots* was the talk of television. The Panama Canal Treaty was signed. Tuition at Yale was \$4,750 a year. And, on May 1, after prolonged demonstrations and sit-in's in government offices from coast to coast, Secretary Califano issued the regulations governing Section 504, and 504 began to work. Spearheaded by the American Coalition of Citizens with Disabilities — led by Eunice Fiorito — an organization that embodied the growing sophistication of disabled consumers, this national effort attracted media coverage and the support of a wide range of powerful organizations. While this attention to disability did not merit mention as a "top" news story of the year, the extensive coverage of the 504 demonstrations reflected an emerging media awareness of the legitimacy of disability.

Coverage in the media was growing and the first White House Conference on Handicapped Individuals brought hundreds of delegates (mostly disabled) to Washington, D.C., to plan their own future actions. It also sparked a huge growth in local organizing and in the formation of new disabled consumer groups and extensive serious media attention.

504 was making inroads. The first court case came in 1977 when a federal

judge ordered Converse College in Spartanburg, South Carolina, to pay for an interpreter for a deaf student. P.L. 94-142 was also changing the way Americans perceived people with disabilities. Passed in 1975, this Education of All Handicapped Children Act had a profound impact on schools and colleges from coast to coast. This law was the first guarantee of an education for all children with disabilities.

The 1970's were full of "firsts." Linda Bove became a regular on Sesame Street. Frank Bove began publishing his books. "Access" symbols showed up in airports and parking lots from Maine to California. The Media Office Regarding Disability was in full swing in Los Angeles, cajoling, persuading and bullying producers to hire actors with disabilities for both television and film. Judy Heumann was honored by *Ms. Magazine*. The late 1970's were days of wine and roses for the disability movement. Help wanted ads in the newspapers routinely mentioned that the employer was an "affirmative action" employer who hired disabled people and other minorities. Section 503 was increasingly visible.

The 1977 print advertising campaign of the President's Committee, created by the innovative New York School of Visual Arts Public Advertising System, featured workers with disabilities and, for the first time, national organizations and important corporations allowed their names to be publicly identified in the print ad campaigns. This bold step was quickly followed by major corporate advertisers running their own ads in a range of disability publications. An important barrier had fallen.

Despite the changes and all the "firsts," the overall public image of people with disabilities was still largely set by telethons: those pitiful, needy, ap-

pealing children who, "without your help and \$," could never hope to grow. United Cerebral Palsy (UCP) took this bull by the horns and established a consumer advisory committee to help monitor and improve its telethon. UCP was honored by *Advertising Age* for its new emphasis on the rights and dignity of people with disabilities. The National Easter Seal Society also heeded consumer criticism and changed the format of its telethon. Across the country, pro-

Administrator of the Veterans Administration. These officials were frequent guests on television talk shows and were skilled communicators in the mass media. Disabled people were moving into all levels of government as well as assuming leadership roles in university disabled student services offices and in other positions.

In an article for the Summer 1978 issue of *Public Relations Review*, I wrote: "In 1978, America's disabled

Increasingly, in the late 1970's people with disabilities were moving into responsible roles in government, business and universities.

professional organizations were increasingly conscious of, and sensitive to, the growing consumer movement. This awareness was accompanied by a substantial increase in consumer representation on boards, advisory groups and staffs of professional organizations.

The entertainment industry took note of the vigorous consumer movement. Lily Tomlin created a new disabled character for her one-woman show, "Crystal the Terrible Tumbleweed." The most visible breakthrough was *Coming Home*, the film starring Jane Fonda and Jon Voight. Voight played a Vietnam veteran who returns to the U.S. using a wheelchair. The film was a "first" in depicting passionate love between a woman and a man who used a wheelchair. The film also generated roles for a larger number of actors with disabilities. Another major barrier had fallen.

Increasingly, in the late 1970's people with disabilities were moving into responsible roles in government, business and universities. W. Mitchell was elected Mayor of Crested Butte, Colorado, and was the first mayor who used a wheelchair. Max Cleland, a disabled veteran, was President Carter's

people seem to be making strides in being accepted by the media and in being acceptable to employers, educators and neighbors. There is no reason why this trend shouldn't continue."

The next peak year for the media and disability was 1981, The International Year of Disabled Persons (IYDP). 504 was four active years old. While IYDP captured enormous media attention throughout the country, it was more than eclipsed by such "top" news stories as the wedding of Prince Charles to Lady Diana, the appointment of Sandra Day O'Connor as the first woman on the Supreme Court, the freeing of the 52 American hostages in Iran on President Reagan's inauguration day, the attempted assassinations of Pope John Paul II and President Reagan, and the assassinations of John Lennon and Anwar el-Sadat.

IYDP was spearheaded in the United States by the U.S. Council, a private organization led by Alan Reich which formed some 1,800 community organizations to focus attention on the Year and on the contributions of Americans with disabilities and a

The growth of people with disabilities working in the media is another phenomena of the 80's.

Federal Government interagency committee. These groups generated activities and media coverage throughout the country. Major magazines ran features on disability issues, developments and personalities. *People*, *Newsweek*, *Reader's Digest*, *Life*, *Teen*, *Glamour*, *Cosmopolitan*, *Family Circle*, and a host of other leading publications gave disability new visibility during the Year.

The print ads of the President's Committee were widely used in 1981 and featured the following outline: "We love the same country. We care about the same things. We dream the same dreams. 1981. The International Year of Disabled Persons."

The 1980's were off and running. From out of the hinterlands came a new voice, *The Disability Rag*, published in Louisville, Kentucky. *The Rag* grew rapidly and holds the distinction of being the only "disability" publication to rate a front-page article in *The Wall Street Journal*. *The Rag's* cogent and critical appraisal of the media is a major contribution in raising awareness and bringing about change. It's impatience and vigor give new urgency to improving the media's coverage of disability issues and people with disabilities.

The growth of people with disabilities working in the media is another phenomena of the 80's. Recognition of this growth and its importance prompted the founding of the American Association of Disability Communicators which I began in 1983 under the auspices of the President's Committee. Today, AADC has members from coast to coast, as well as many abroad — all of whom share a concern for improved media relations and media

treatment of the issues of disability. AADC has identified writers, journalists, editors, broadcasters, anchorpeople, and a host of others with disabilities working in the media. Three of America's major metropolitan dailies have regular columnists on disability issues: Jim Neubacher at *The Detroit Free Press*; Edward John Hudak at *The Philadelphia Daily News*; and Deborah Kendrick at *The Cincinnati Enquirer*. AADC is now sponsored by the National Organization on Disability. Its Media Awards, honoring the finest media contributions to public understanding of disability issues, cosponsored by the President's Committee,

The Baby Doe story illustrates the need for information about disability . . . Baby Doe was a disability issue that largely got away from the disability community.

have recognized the work of IBM, National Public Radio, television producers at stations throughout the country, writers and editors from major magazines, and a host of media talent in the disability field itself.

The relationship between the media and 504 has not been a static one. It has, rather, been marked by radical change. It is not fixed and will not be for the foreseeable future. There are some indications today — in the late 1980's — of trends that will continue to change this relationship. I believe that one of the major trends is a basic one: information. It is increasingly clear that people with disabilities are not getting the information they need from the media to lead full and independent lives. Nor are people in the media getting the information

that they need to present the issues of disability in an informed way. A second major trend is the growing awareness that disability is too important an issue to be handled outside the disability field. These trends can be seen clearly by examining the media coverage of Baby Doe.

Baby Doe was one of the major disability stories of the early 1980's. This story pitted the parents and doctors of Baby Doe, an infant born with spina bifida, against disability advocates. Far and away the majority of the news coverage of Baby Doe originated from the medical profession. Baby Doe was deemed to be "doomed" by the impairments that she had been born with. Her life would be, according to the medical professional, a "difficult" and

"valueless" one. Her parents would "suffer unduly" by having this child live. Much of the media attention focused on the pathos and tragedy. There were notable exceptions to this one-sided approach to Baby Doe. Nat Hentoff, in a brilliant series of columns in *The Village Voice*, delved deeply into spina bifida and gave numerous examples of happy, well-adjusted children and parents. Life with spina bifida was not only possible, but rewarding to many. Another writer who went beyond the medical profession's traditional treatment of Baby Doe was Paul Longmore, whose writings in *The Los Angeles Times* gave a far more comprehensive look at Baby Doe.

The Baby Doe story illustrates the need for information about disability. It

The 1980's has witnessed coalitions of these multiple interests allied to fight for legislation and funding as never before.

also underlines the importance of disability advocates framing the issues for the media in an informed and intelligent way. Baby Doe was a disability issue that largely got away from the disability community.

One of the significant developments of the 1980's is the amount of information that is being developed about disability and people with disabilities. Studies are pouring out that offer advocates and professionals the information that they must have to work effectively with the media. Armed with solid information, future Baby Doe stories can be more reflective of disability issues and responsive to the interests of people with disabilities.

The 1986 Louis Harris and Associates study, "Disabled Americans' Self Perceptions," found information to be sorely needed by millions of America's disabled citizens. The study found that only 31 percent of disabled Americans are familiar with Section 504. Only 13 percent of the disabled people interviewed have used either vocational rehabilitation or transportation services for disabled people. The strong identification with the movement was found among 45 percent of disabled Americans who feel that they are a minority group in the same sense as blacks and Hispanics. Consensus was strong (75 percent) that disabled people should be included in civil rights laws that protect minorities against discrimination.

In 1987, Louis Harris and Associates did a second study, "Employing Disabled Americans," which also adds to the body of knowledge about disability. This study found that employers need information about disabled people, and a majority of the employers involved in the study identified the lack of

awareness about disabled people at all levels of management to be a major deterrent to the employment of disabled people. The employers also cited the need for civil rights protections for disabled people.

A study conducted by the Research and Training Center on Independent Living in Lawrence, Kansas, determined in a test model in Kansas City that media people need information and will respond when provided the information. This study involved a letter writing blitz by disabled volunteers at Kansas City's independent living center, The Whole Person. Tackling the Kansas City media, the 9-month letter writing/information campaign had the following results: the use of acceptable terminology about disability by reporters at the *Kansas City Star* newspaper rose from 48 percent to 70 percent. *The Kansas City Times*, which at the start of the information campaign, used acceptable terminology only 35 percent of the time, ended the campaign using acceptable terms 60 percent of the time.

Dr. Otto F. Wahl, of George Mason University, conducted a study of television news reporters and editors at Washington, D.C., stations and found that these newsroom people recognized that they knew very little about mental illness and that they would be receptive to information and guidance.

Factual, reliable information about disability issues is needed by people with disabilities, employers and media professionals. A sense of urgency about the problems of disability is also needed. The employers in the Harris study identified this "lack of urgency" as an obstacle to disabled people in the job

market. It appears that the urgency that 504 gave to the 1970's has dissipated in the 1980's.

Surely, generating this sense of urgency shouldn't be such a terrible obstacle, given the statistics of disability: over two-thirds of all disabled adults are out of the labor force; lack of education, job training and mobility seriously hamper opportunities for people with disabilities. Poverty is a plague.

The capable and confident consumer movement has allies across society now: strong parent organizations, even in traditionally neglected areas such as mental illness, where the National Alliance of the Mentally Ill is proving to be a dynamic force for change; educators affected by — and concerned with the progress of — 504 and the Education of All Handicapped Children Act; employers concerned with 504 and affirmative action; governments at all levels; labor, women's and elderly organizations. The 1980's has witnessed coalitions of these multiple interests allied to fight for legislation and funding as never before.

The media can do much to identify the need for urgency and cooperation in improving opportunities for people with disabilities. Influential newspapers like *The New York Times* and *The Wall Street Journal* regularly run serious articles on a wide range of disability issues. While it is widely known that most people receive their information from television, respected newspapers still hold their influential audiences and are crucial to getting the word to decision makers in all areas of society.

Entertainment remains a mixed bag. Much of it is demeaning, sensationalized and detrimental to the image of disabled people. The exceptions, plays and films such as *Children of a Lesser God*, are capturing attention to

(Continued on page 25.)

Employability Enhancement

Through Technical Communication Devices

Andrew Y. J. Szeto, Ph.D.
Elizabeth J. Allen, Ph.D.
Marilyn A. Rumelhart, Ph.D.

One of the major barriers to successful employment for severely disabled people is adequate communication in the workplace. Although they may possess the necessary cognitive skills for certain jobs, their physical disabilities may impair oral communication enough to be a major employment barrier. The use of computer based communication devices can augment the communicative skills of physically disabled persons and increase the likelihood of employment.

In response to the need for applying technology to enhance the employability of communicatively impaired disabled adults, a demonstration project was initiated at the San Diego State University Clinical Training Center. The specific goals of this project were to develop relevant assessment procedures, improve the vocational readiness of the clients, and assist in their vocational placement. This article describes procedures that have been developed to reach each of these goals and some of the special problems that have been encountered in that effort.

Afflictions that severely limit communication ability include congenital conditions, acquired disabilities, progressive neurological diseases, and temporary dysfunctions. Examples of congenital conditions include cerebral palsy, mental retardation, severe hearing impairment, deaf/blindness, autism, developmental apraxia, and developmental aphasia. Examples of progressive

neurological diseases include multiple sclerosis and muscular dystrophy. Temporary conditions that can impair communications may result from accidents, illness, trauma, and surgery.

Many of these nonvocal people can be helped by the proper use of assistive devices based on computer technology. Although such devices have proven helpful in improving a disabled person's ability to interact with a supportive environment, less attention has been given to the communication problems confronting nonvocal, disabled persons seeking to enter the workplace, an environment that is unfamiliar and even uncomfortable with the problems of severely disabled people.

The communication barrier to employment is a sizeable, nationwide problem. Although statistical data are sparse, several lines of evidence indicate that a large number of people are not gainfully employed because of communications difficulties. For example, it has been estimated that 165 of every 1,000 adults are disabled and that over 10 million adults are severely limited in their ability to work.¹ It is reasonable to assume that a portion of these adults are speech impaired. The 1977 *National Health Interview Survey* concluded that 2 million people had speech impairments, some of which were severe

enough to deter employment. The Bureau of Education for the Handicapped, U.S. Office of Education, conference on "Communication Aids for the Non-Vocal Severely Physically Handicapped Persons (1976)" indicated that 20 percent, or 150,000, of the cerebral palsied population were nonvocal. The Office of Special Education and Rehabilitative Services, U.S. Department of Education, reports that 50-80 percent of working age adults who report a disability are jobless.² The National Head Injury Foundation estimates that of the 700,000 Americans who are treated yearly for head injuries, 75,000-100,000 will remain permanently disabled to some degree.³ Furthermore, the number of people who become nonvocal due to stroke will likely increase as the number of people over 50 years old increases.

The psychosocial consequences of severe communication impairments (when coupled with significant physical impairments) include an extremely limited choice of employment possibilities, few post-secondary educational opportunities, social isolation, and minimal independence in mobility and living arrangements. Although gainful employment may not alleviate all of these problems, it can greatly reduce them.

The economic consequences of the reduced ability to work is staggering. In April 1982, the *Social Security Bulletin*

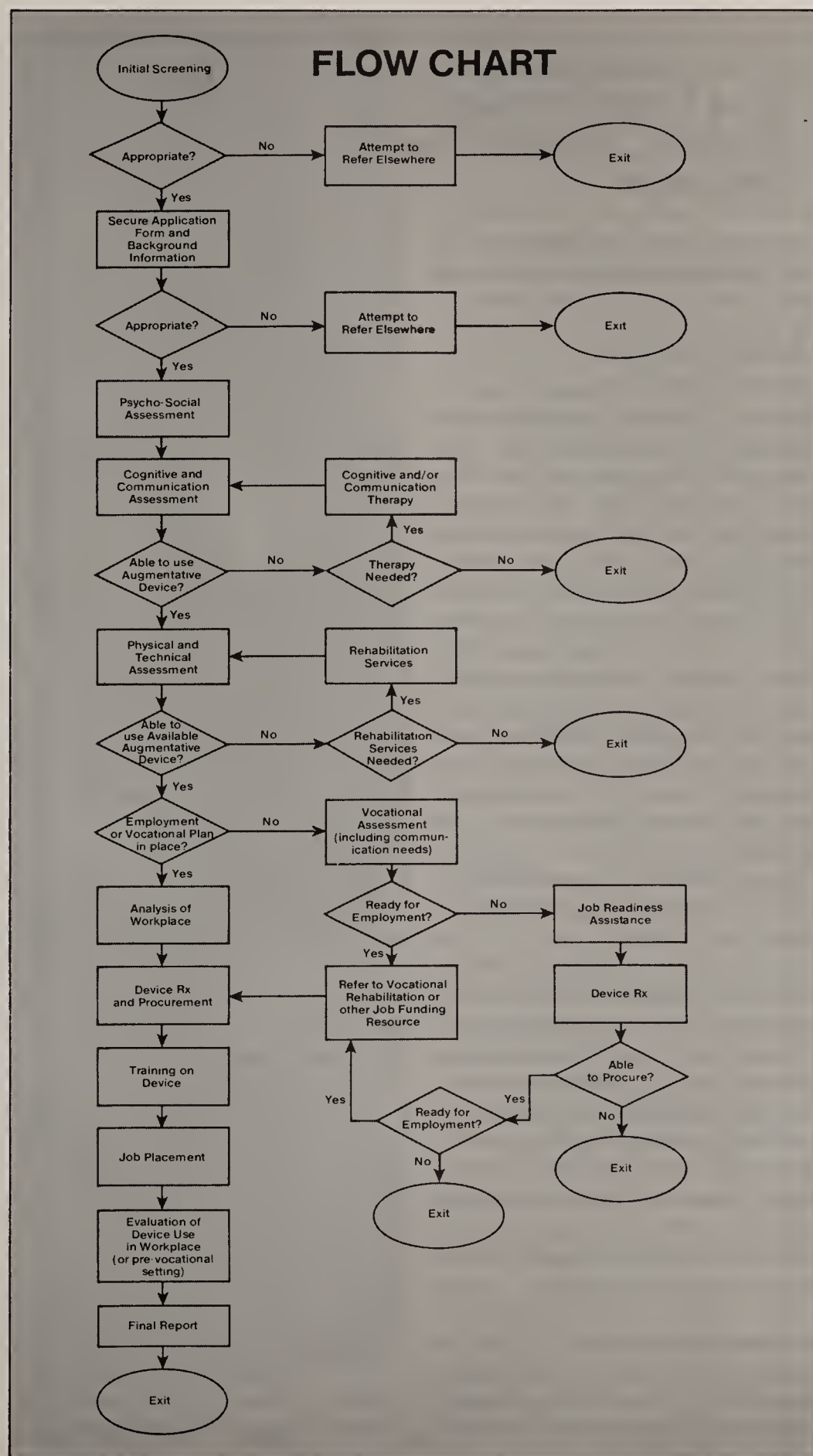
reported that 2,772,000 working age people were receiving Old-Age Survivors and Disability Insurance Benefits. The benefits paid to these people averaged \$412.34 per month, which translates to \$1.2 billion per month nationally.⁴ Even if just 10 percent of these people (a conservative estimate) could be returned to gainful employment, a cost savings of \$1.2 million *per month* could be realized.

In reponse to the need demonstrated by the above statistics and based on the experience and expertise available at the San Diego State University Clinical Training Center, a demonstration project was initiated on October 1, 1984. The overall goal is to enhance the employability of persons having severe communication impairments and concomitant physical disabilities by using technical communication aids. The specific objectives are as follows:

- Develop assessment procedures that are appropriate and effective for the target population identified above.
- Improve the vocational readiness of project clients.
- Assist in vocational placement of the client via advocacy, job analysis, communications training, worksite modification, and followup.

The flow chart illustrates the series of steps which occur (or may occur) for each client. The fairly straightforward sequence of events on the left reflect objectives one and three, which were all that the project was originally expected to entail. After the first year, however, it became clear that additional activities related to the vocational readiness of the clients would be necessary. The second objective was consequently added to that point. Explaining the unexpected difficulties which led to the decision will be discussed below.

During the first half of this 36-month demonstration project, procedures for assessment, training and vocational placement were developed. Following a



. . . . several lines of evidence indicate that a large number of people are not gainfully employed because of communication difficulties.

description of these procedures, the current perspectives and concerns of the project team will be enumerated.

Assessment Procedures

The assessment procedures used include psychosocial, cognitive/communication, physical/technical, and vocational components. An important feature of the project has been the development of rapid, targeted assessment. With this approach, it has been possible to identify the type of augmentative communication device needed by a client after two or three 2-hour visits to the Clinical Training Center. Our targeted assessment not only makes the best use of valuable facilities and staff time, but also reduces the stress of the assessment process for clients whose severe physical disabilities make travel difficult.

Greater efficiency is possible due to the comprehensive pre-assessment evaluation carried out by the multidisciplinary Assistive Device Assessment Program team. Crucial elements of the pre-assessment are a screening interview with the referring individual (usually by telephone), a detailed application form, and written reports from the potential client's physician and all agencies which may have provided services. Based on this information, the team decides if it will accept the client and whether further elaboration of application materials is needed.

The social worker begins the psychosocial component with visits to the client's home and (if relevant) school or workshop. The social worker's assessment always includes careful attention to the communication strategies used by

the client and the social/emotional impact these appear to have on the home and work environments. The project team may also request that the social worker clarify certain aspects of the accumulated background information.

Information about the client's activities, relationships, and social systems may be significant in selecting the appropriate communication device, its procurement and the client's vocational possibilities. Particular features of the client's situation may make certain types of augmentative communication systems totally impractical. For example, a system with only written output would not be of much help to a person whose peer group includes large numbers of nonreaders. Someone with a very active lifestyle would require a portable communication device.

The three major parts of the assessment process at the Clinical Training Center are the cognitive/communication assessment, the physical/technical assessment and the vocational assessment. In general, these assessments use portions of standardized tests as well as a variety of informal measures, which confirm skill levels indicated by the collaborative reports. This approach is similar in many respects to that used by the Assistive Device Center at California State University, Sacramento.^{5, 6} Our emphasis on assistive devices oriented toward employment, however, makes the San Diego State approach unusual. In addition, our demonstration project is linked to the training of graduate students in several different disciplines and places a high priority on

team collaboration. All assessments are conducted behind one-way mirrors and are videotaped. Later, they can be analyzed or reviewed by team members prior to staffings.

The application materials and the social work report enable the speech/language pathologists to plan an individualized cognitive/communication assessment. The assessment uses a variety of measures that are pre-selected for a particular client, based on available information; but alternative evaluation tools are also brought to the assessment session. For example, if the background information indicates that the client to be assessed is already using an alphanumeric based communication system (e.g., a spelling board), the client's picture symbol skills would not be evaluated.

In most cases, however, identifying a symbol system is an important first step in the evaluation process; it can determine the type of communication device that will ultimately be recommended. A client who can use orthographic symbols can complete a generated message better than one who uses some type of picture symbols. Some of the electronic devices have message acceleration capabilities that are geared toward alphanumeric symbols. Consequently, the identification of the most appropriate assistive device usually begins with the assessment of the client's symbol system.

The information from the social work report and background materials is used to plan efficient, informal social activities. Such interactions enable the team to determine expressive skills. Pragmatic skills, including turn-taking in conversation and the repair of communication breakdowns, are also noted during this part of the evaluation. If there is any expectation that the client may be able to read, the strength of this skill is also assessed, using portions of standardized tests.



Technical assessment of a client using the Eval Pac (Adaptive Communication System, Inc., Pittsburgh, PA.) with various ADAP team members serving as observers.

The cognitive/communication assessment also attempts to ascertain memory skills. With good memory skills, the client may be able to use one of the devices which use personalized abbreviations to speed operation. Significant deficits in short-and/or long-term memory can severely limit one's ability to use a communication device.

Unless more formal measures are warranted, auditory comprehension is assessed informally, and can range from a functional examination of how well a client understands speech to more formal evaluations such as the *Token Test*.⁷ Some clients may exhibit socially expected behavior, such as head nods, which suggest that they understand directions or the essence of the conversation. Careful testing may reveal, however, that they cannot process complicated sentences or determine much more than just the main subject and verb in the message. Such impairments can significantly limit vocational options.

If a client has an actual hearing or vision loss, this disability is considered in the evaluation and in the assistive device and vocational recommendations. Facilities to conduct sophisticated audiological evaluations are available in the Clinical Training Center, and at least one Assistive Device Assessment Client has required this service as part of her evaluation process.

Sometimes the results of the cognitive and communication assessment indicate that a client could use an augmentative communication system if special therapy were first applied. For example, therapy may be needed to increase attention span or to improve syntax and/or spelling skills.

Clients who can learn to use an augmentative communication device must also be evaluated from a physical and technical standpoint so they can be

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Partnerships in Rehabilitation

Tradition and Challenge

Douglas L. Burleigh, Ph.D.

In late 1985, Louis Harris and Associates completed an unprecedented telephone survey of a national sample of noninstitutionalized people with disabilities, ages 16 and over. The report of that survey is entitled *Disabled Americans' Self Perceptions: Bringing Disabled Americans into the Mainstream*. In reading the executive summary of that report, we learn what it means to be disabled in America in 1985:

"Disabled Americans have far less education as a group than do nondisabled Americans . . . Disabled Americans are much poorer than are nondisabled Americans . . . A majority of disabled Americans say their disability prevents them from getting around, attending cultural or sports events or socializing with friends outside their home as much as they would like . . . [but most significantly] not working is perhaps the truest definition of what it means to be disabled in this country."

Harris and Associates report that "Two-thirds of all disabled Americans between age 16 and 64 are not working." Other estimates are similar. The National Council on the Handicapped in its report entitled, *Toward Independence* (February, 1986), cites 1980 Census figures indicating that 63 percent of the total number reporting disabilities, between ages 16 - 64, were

not in the labor force. Using data from the Current Population Survey conducted by the Census Bureau, Frank Bowe (undated) reports that in 1981, 65.5 percent of men with disabilities and 80.6 percent of women with disabilities, all of working age, were not employed. As Dr. Bowe succinctly concludes, "Most disabled persons are not in the labor force."

The goals and aspirations of Americans with disabilities are varied, as they are for all Americans. The desire to work, the dream of applying one's talents and skills in a successful career seem to be commonplace, however. As pointed out in the National Council report, "Employment is an essential key to successful adult integration into community life . . . Success and quality of life are often measured in terms of paid employment."

Sixty-seven years ago, Congress experimented with a public policy to meet the employment needs of people with disabilities. The state-federal vocational rehabilitation (VR) program was born. Over the past 67 years the state-federal program has been hard at work helping Americans with disabilities become employed. From 1921 until 1985, almost 7 million Americans with disabilities used the services and resources of the state-federal program in getting jobs; 227,652 in 1985 alone. The federal budget for the VR program has grown

from \$500,000 in 1920 to \$1,277,797,500 in fiscal year 1987.

In addition to the state-federal VR program, through the years an increasing number of other federal agencies, commissions, boards, and organizations have begun providing services to disabled people. According to the National Council on the Handicapped, the number of such public programs now exceeds 45, dispersed among 5 separate cabinet level departments. Despite the commendable record of the VR program and the proliferation of other public programs, the majority of disabled Americans of working age are unemployed.

Obviously, the challenge is beyond the resources of one agency acting alone, or 45 programs working independently, or worse yet, working at cross purposes. As emphasized in *Toward Independence*, partnerships among federal, state, local, and private sectors are needed to "render effective and nonduplicative services to enhance the opportunities for equality and independence for persons with disabilities."

Toward Independence implies that the effectiveness of partnerships should be measured in terms of their success in achieving the following:

- improved communications;
- more integrated services;

- better informed policy discussion;
- improved service delivery at equal or reduced costs;
- increased involvement of people with disabilities in the planning process; and
- serving people who do not fit into established service categories.

Neither the concept of “partnerships” nor the measures of its effectiveness is new to VR. On the contrary, “partnerships” is a theme central to the workings of the state-federal program. In a sense, it is a hallmark of VR. It is infused in the laws and regulations which direct and shape the VR program. It is a philosophical and theoretical underpinning of rehabilitation counselor education programs which prepare its workers. It springs from the realities of limited dollars necessitating the sharing of resources and expertise among service providers. It is recorded in the long history of cooperative agreements, crafted with the intent of dedicating resources and expertise to improve services to special needs groups. It is expressed in the key emphases of federal initiatives in recent years. And, it is the minimum condition of consumerism, which says that consumers and providers will work as equal partners in the VR process.

Laws and Regulations

In authoring the Rehabilitation Act and its succeeding amendments, Congress understood and accounted for the diverse partners which contribute to and constitute the VR process — other federal, state and local public agencies, service vendors, rehabilitation facilities and, most central, consumers. The Act calls for partnerships in planning and implementing state agency policies: for example, section 361.18 of the regulations requires the state agency to consult with consumers, service providers and “others” in planning and administering policy. The Act calls for

“Two-thirds of all disabled Americans between age 16 and 64 are not working.”

partnerships in providing services: for example, section 361.19 requires state agencies to use the services and facilities of certain designated federal, state and local agencies and programs in providing VR services; and, section 361.22 says that state agencies must use existing rehabilitation facilities to the maximum extent feasible to provide VR services. Lastly, the Act defines the critical points in the VR process where the consumer and the state agency counselor must work as partners: the most significant point is the development of the Individualized Written Rehabilitation Program which lists vocational objectives and services determined “jointly by the designated State agency staff member and the handicapped individual . . . (section 361.40).”

Rehabilitation Counselor Education Programs

Since 1955, the Rehabilitation Services Administration has awarded grants to institutions of higher education to train professionals to work in the state-federal VR system. In graduate and undergraduate rehabilitation programs, students are typically introduced to rehabilitation as a philosophy and process which emphasizes its partnership features. Characteristic of most introductory texts, *Introduction To Rehabilitation* (Bitter, 1979) discusses the rehabilitation philosophy in this manner:

“Because rehabilitation deals with the whole person and because professions are specialized and composed of categories, it is necessary for rehabilitation to be interdisciplinary in nature. The complexity of humans necessitates specialization to achieve depth in both understanding and service delivery. To make rehabilitation an individualized process requires integrating a myriad of specialties and resources into a com-

prehensive approach for serving the whole individual. This is generally accomplished in two ways: One way is the *team approach* among professionals which, depending on a client’s needs, coordinates the specialized skills of the physician, nurse, physical therapist, occupational therapist, speech-language pathologist, audiologist, psychologist, social worker, educator, vocational counselor, etc. (Whitehouse, 1960; Jacques, 1970; Rush, 1977). The second way is by using a *generalist*, known as a *rehabilitation counselor*, who not only provides services but also coordinates multidisciplinary services on behalf of the individual. This generalist must be aware of everything going on and must direct the rehabilitation process into a master plan (Talbot, 1971).”

Graduating rehabilitation professionals understand that they work in partnership with their clients, other professionals and providers of services in defining the needs of their clients and in planning and implementing programs of VR services.

Limitation of Dollars

The sheer limitation of available dollars has forced state VR agencies to enter into partnerships with other federal and state public programs to share in the costs of rehabilitation plans. Backed by the “similar benefits” requirement of the Rehabilitation Act, state VR agencies have sought other agencies’ dollars *first*, before spending their own funds for VR services. Problems begin, of course, when other public agencies have identical statutory requirements. This creates a strange “dance” among the forced partners to see whose “first dollar” will indeed be spent first. Nevertheless, state VR agencies have found

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The Use of Marketing in a Rehabilitation Center

a Case Study

Doris C. Van Doren, Ph.D.

Louise W. Smith, Ph.D.

In 1982, the administrator of a rehabilitation center for mentally retarded adults started taking steps to bring the benefits of nonprofit marketing to the center. This case study will demonstrate the trouble spots that occurred during initial stages, the major milestones along the way, and the improvement in client programs. Programs increased in both the number of clients served and their productivity. The center's sales increased 122 percent from 1982-1986.

A rehabilitation center director (the name and organization shall remain anonymous) was tired of constantly having to justify funds for his agency from the state and from contributors. He wanted the center to be more self-reliant. Through professional reading, he was aware that marketing ideas could be useful to a wide range of nonprofit organizations. Perhaps it could be useful to his.

A prior experience with outside consultants had not been successful. The report talked about marketing, but the director did not know how to apply the concepts to the organization, nor did he have the money to pay the consultants to implement it for him. He attributed this disappointment to his own lack of marketing knowledge, because he had not been able to specify desired results.

a written guide was urgently needed for the marketing director.

An employee, who had been a production supervisor, had been selected to begin marketing efforts because she was attempting some marketing activities, she had previously worked in business, and she had political connections which could prove advantageous. It was assumed that her ability would grow with experience if she could be given specific direction.

Getting Started

The first major milestone was the successful selling of the need for a professionally written marketing plan. The director's selling effort began with the Executive Director. Once the Executive Director was convinced, effort turned to the Executive Committee of the Board. The director describes the situation this

way: "It was the impression of the board that marketing was one small function in an organization. My strategy was to show them that the marketing concept should be immersed in everything we did." Despite the fact that committee members held business positions in the community, they viewed the nonprofit facility as a charitable organization, not as a business. A carefully prepared presentation and the Executive Director's support convinced the Executive Committee. Interestingly, the director chose not to present the proposal to the entire board because he wanted to avoid making "a big production" of it. The full board was informed as a monthly information item. Thus began the "marketing update," part of the written staff report presented at each monthly board meeting.

The First Year

The director considers his continuous "selling of successes" the key in the overall acceptance of marketing. He constantly expressed his own confidence and enthusiasm. One trouble spot came from using the production supervisor as the marketer. As the director explains:

"The board would not permit a marketing emphasis without a lot of 'heart'." "Heart" was defined as placing a well known, very dedicated employee in this newly created position. In addition, the board wanted to be convinced that marketing would generate enough funds to cover the salary of a new employee. Although the inside person was "all heart," the conversion into a marketer was not materializing. It turned out that "There is a tremendous difference in paying lipservice to an orientation and in understanding an orientation so that a payoff comes to the organization." The internal employee had many small successes but remained uncomfortable with the marketing point of view.

The Second Year

The highlight of the second year was a growing awareness of "what is" versus "what is possible," with the realization that "just because jobs come your way, it doesn't mean you are marketing." The marketing plan had delineated possible new opportunities and included a step-by-step process for studying new ventures and assessing their potential. Instead of implementing these strategies and tactics, the "all heart" employee turned marketer pursued whatever came into the facility, regardless of its profit potential. Finally, a policy was made "to set a profit margin and keep with it. Otherwise, the job isn't really an opportunity. It's a time filler!" This major difference in attitude toward jobs for their retarded adults indicated a true commitment to marketing and an indication that the organization was willing "to determine its own destiny."

The Third Year

The organization was now sufficiently marketing oriented and had enough marketing successes to agree to hire a marketer. The director commented that

"There is an indoctrination that occurs in a nonprofit that one person can do it all and the result is a jack of all trades and a master of none. The final activity was to become masters of marketing!" The "all heart" employee had decided to leave the marketing position. She was sincerely complimented on her efforts and successes during the initial stages.

Total revenues for the center increased from \$68,736 in 1981 to \$218,631 in 1986.

The staff sought a person with marketing expertise rather than experience.

The recruitment process included an interviewing committee comprised of professionals with marketing, personnel and business backgrounds. To complement the hiring of a qualified marketer, the organization was restructured to best implement marketing. The new organization chart separated production and training program functions. Marketing served as the integrating function. The director stated that, "A very pivotal point for us was coming to terms with the dual nature of the organization. We are offering training in a normative setting as well as providing a service to customers. If internally we said, 'We are not a business,' I surely didn't want our customers to know." The board accepted the formal restructuring which established business and training program components, integrated through marketing.

The marketer began by evaluating contracts employing the center's clients on a profit-loss basis. Contracts operating at a loss were replaced by those operating at a profit, and the profits were used for developing new programs. The marketing plan also guided the director and marketer in developing programs which could be run as businesses, while still fulfilling the center's mission of rehabilitation.

The Fourth Year

The bakery department of the center is an excellent example of the increased benefits to the center and its clients, as well as the use of the marketing plan.

Before 1982, the bakery had operated mainly as a training facility. There were two wholesale purchasers of baked

goods, and production was limited to these purchasers and training. With the marketing plan as a guide, wholesale purchasers were increased to 25, and a retail bakery was opened recently to employ more clients and increase the center's revenues. Although the board objected to the idea of a retail bakery, the marketing plan and the detailed business plan drawn up by the marketer convinced the board to approve.

Although the bakery hasn't been open long enough to evaluate, since 1984 the crew size for the bakery increased from 10 to 13, average clients' wages increased 41 percent, and the average client productivity increased 19 percent. Total revenues for the center increased from \$68,736 in 1981 to \$218,631 in 1986. 1987 revenue is projected to be \$510,550. The number of clients served increased from 77 in 1982 to 104 in 1986.

Individual clients have benefited as well, and an example of this is the client who has risen from a baker's prep to an assistant baker, who is in charge of the bakery when the head baker is absent; in a few years this client has gone from working 10-15 hours per week in a sheltered workshop to working 33 hours per week in a retail bakery.

Conclusion

What is the thinking now that the 3
(Continued on page 31.)

REPORT RESOURCES

PREDICTING WHO WILL RETURN TO WORK: PRELIMINARY REPORT. E. J. Hester and P. Decelles, Menninger Rehabilitation Research and Training Center, Topeka, Kansas, 1986. 7 pages. Available from the National Rehabilitation Information Center (NARIC), 4407 Eighth Street, N.E., Washington, D.C. 20017. Toll free telephone: 800-34-NARIC (voice/TDD). There is a charge for photocopying documents.

Report on a scale developed to help predict whether a person who has become disabled will return to work. The scale uses a point system and considers disability type, age, sex, education, marital status, occupation, residence area, type of employer, type of disability report, and wage replacement.

THE WISH BOOK OF ACCESSIBLE VACATIONS. 1987 Catalog. Whole Person Tours, Inc., P.O. Box 1084, Bayonne, New Jersey 07002-1084. 40 pages. \$2.

Offered in this catalog are a selection of fully-accessible tours in the United States as well as Canada (Nova Scotia, Montreal, Quebec, Ottawa, Toronto, Niagra Falls, Vancouver, Victoria, Banff, Jasper, and the Canadian Rockies).

Included are an "American Heritage" tour (New York, Baltimore, Williamsburg, Washington, D.C., Philadelphia), three different Disney World packages, a "Northeastern Vistas" vacation in New England, a fall foliage outing, a long weekend in the Pennsylvania Dutch Amish country, New York and Atlantic City adventures, and two relaxing Hawaiian tours.

MODIFYING THE WORKSITE TO ENHANCE EMPLOYABILITY: ANNUAL REPORT, FEBRUARY 1985 - JANUARY 1986. Rehabilitation Engineering Center, Wichita State University and Cerebral Palsy Research Foundation of Kansas, 1986. 153 pages. Available from the National Rehabilitation Information Center (NARIC), 4407 Eighth Street, N.E., Washington, D.C. 20017. Toll free telephone: 800-34-NARIC (voice/TDD). There is a charge for photocopying documents.

This report describes Rehabilitation Engineering Center projects on worksite modification and assessment of independent living skills intended to increase employability of disabled people. Projects include analysis of functional abilities of neurologically impaired people, occupationally significant physical skills of pre-vocational disabled people, use of robotic arm in the workplace, and assistive device prescription for independent living.

HANDICAPPED FUNDING DIRECTORY. Fifth edition. Research Grant Guides, P.O. Box 4970, Margate, Florida 33063. \$23.50 (plus \$2 for postage and handling).

Now entering its 10th year, this directory is a research tool for planners and fund seekers of programs and services for disabled persons. It contains funding information on more than 700 corporations, foundations, government agencies, and associations that fund programs and services for disabled people. It also includes guidelines on how to obtain a grant, addresses of state agencies and their directors, and a bibliography of grant funding publications.

"YES YOU CAN." National Easter Seal Society, 2023 W. Ogden Avenue, Chicago, Illinois 60612. Telephone: (312) 243-8400, Extension 154, and (312) 243-8880 (TDD) \$1.65 (plus 75 cents postage and handling).

Cartoon-like sketches illustrate the revised booklet designed for students with learning disabilities from fourth grade up as well as their parents and teachers. It explains the causes and misconceptions of learning problems, how it feels to have a learning disability, what can be done, and where to go for help.

STUDY OF BODY-POWERED UPPER-LIMB PROSTHESES IN EUROPE: INTERNATIONAL EXCHANGE OF EXPERTS AND INFORMATION IN REHABILITATION FELLOWSHIP REPORT. M. LeBlanc. World Rehabilitation Fund, 1986. Available from the National Rehabilitation Information Center (NARIC), 4407 Eighth Street, N.E., Washington, D.C. 20017. Toll free telephone: 800-34-NARIC (voice/TDD). There is a charge for photocopying documents.

This document describes a researcher's visit to Europe to study innovations in body-powered arm prostheses, particularly in Delft, Muenster and Edinburgh.

LS&S GROUP, INC., catalog, P.O. Box 673, Northbrook, Illinois 60065. Free. Write to above address or call toll free, 1-800-468-4789.

Catalog features an assortment of unique and practical products for use by visually impaired people.

ELDERLY BLIND CLIENT: FACTORS ASSOCIATED WITH EMPLOYMENT INCOME: TECHNICAL REPORT. S. Marmion. Mississippi State University Rehabilitation Research and Training Center, 1986. 107 pages. Available from the National Rehabilitation Information Center (NARIC), 4407 Eighth Street, N.E., Washington, D.C. 20017. Toll free telephone: 800-34-NARIC (voice/TDD). There is a charge for photocopying documents.

Examines ways in which state rehabilitation agency services contribute to the case outcomes for elderly blind people and identifies client characteristics, agency factors and resources associated with four client employment outcomes: competitive employment, sheltered workshop employment, homemaking, and non-working closures.

FAMILIES AS ALLIES: PARENT-PROFESSIONAL COLLABORATION TOWARD IMPROVING SERVICES FOR SERIOUSLY EMOTIONALLY HANDICAPPED CHILDREN AND THEIR FAMILIES: CONFERENCE PROCEEDINGS. M. C. McManus and B. J. Friesen, 1986. 85 pages. Available from the National Rehabilitation Information Center (NARIC), 4407 Eighth Street, N.E., Washington, D.C. 20017. Toll free telephone: 800-34-NARIC (voice/TDD). There is a charge for photocopying documents.

This is a report on a conference to promote collaborative working relationships between professionals and parents of seriously emotionally handicapped children and adolescents. It discusses obstacles to collaboration, overcoming barriers and action plans for specific western states.

NEWS, NOTES, ANNOUNCEMENTS

Blankenship Receives 1986 Switzer Award

Lester D. Blankenship, an RSA employee for 21 years, is the recipient of the 1986 Mary E. Switzer Award.

Mr. Blankenship, who is Chief of RSA's Basic State Grants Branch, was presented the award in December 1986 by Assistant Secretary Madeleine Will, Office of Special Education and Rehabilitative Services, U.S. Department of Education.

The Switzer Award, established in memory of the late Mary E. Switzer, honors OSERS employees who have been effective in reaching people served by its programs.

In his position in the Division of Program Administration, Mr. Blankenship provides direction and technical assistance to more than 80 state vocational rehabilitation agencies with more than 30,000 employees. The Basic State Grants Branch is responsible for leadership and direction to states in the administration of the major portion of the Basic State Grants Program which annually expends about \$1 billion, serves over 1.5 million handicapped people, and rehabilitates over 250,000. He is the lead staff person for the implementation of RSA's employment goal, established in 1983, to promote and facilitate increased placement of people with disabilities into paid employment. In carrying out his responsibilities, Mr. Blankenship has demonstrated his concern for the quality of services provided by the state-federal rehabilitation program and their resulting impact on the lives of disabled persons.

He is also an extremely effective member of *American Rehabilitation's* *ad hoc* Editorial Review Board, where

for years he has contributed immeasurably to the quality of this magazine.

During World War II, he was a combat infantryman with the 2nd Infantry Division in Europe. He fought in several campaigns, including the Battle of the Bulge, from 1943 until the end of the war. He was discharged in 1946.

After receiving a spinal cord injury in an automobile accident that resulted in paraplegia, he entered the University of Illinois, where he received his Bachelor of Science degree in psychology. Shortly after graduation, he began his career in the field of rehabilitation with the Illinois Division of Vocational Rehabilitation Services. He remained with the Illinois agency for 11 years, serving as Chief of Rehabilitation Services and Coordinator of Services Standards.

In 1966, Mr. Blankenship joined the staff of the Vocational Rehabilitation Administration, now RSA, where he has served the disabled community with dedication and enthusiasm.

PWI Conference Set

The 1987 Projects With Industry National Training Conference, sponsored by the Employment Research and Training Center, the Inter-National Association of Business, Industry and Rehabilitation, the Midwest Association of Business, Rehabilitation, and Industry, and all Region V Projects With Industry, is scheduled for October 15-16 in the McCormick Center Hotel, Chicago, Illinois.

For further information, contact the Employment Research and Training Center, Rehabilitation Counseling Department, New York University, 50 West Fourth Street, New York, New York 10003. Telephone: (212) 598-7015.

1987 Courage Award Recipient Announced

Marilyn Price Spivack, whose experiences with her brain-injured daughter led her to organize the National Head Injury Foundation (NHIF), has been named the 1987 recipient of the National Courage Award.

The National Courage Award is presented each year by the Courage Center in Minneapolis to a person who has made a significant impact in providing services for people with disabilities and focusing attention on disability-related issues.

Mrs. Spivack's organization, NHIF, is dedicated to promoting public understanding and the creation of rehabilitation programs for head injury, often referred to as the "silent epidemic."

Head injuries, often caused by auto, motorcycle or diving accidents, kill more than 140,000 people in the United States each year. Modern medicine enables 50,000 to 70,000 people to survive head injuries each year, but these are often left permanently disabled by brain damage.

Organizations such as NHIF and Courage Center have found that many people with head injuries can regain some of their independent living skills through carefully supervised therapy, training and support.

Mrs. Spivack, a suburban Boston resident, teamed up with a group of doctors, psychologists and parents of children with head injuries to organize NHIF in 1980 after many frustrating years trying to cope with the after effects of her daughter Debby's brain injury.

Mrs. Spivack now devotes her time to campaigning for the creation of head injury treatment programs, educating the public about the effects of head injury and assisting with her daughter's continued recovery at a New Hampshire

brain injury center created with the encouragement of NHIF.

Mrs. Spivack will receive the National Courage Award at a public banquet April 23 at the Radisson Plaza Hotel in downtown Minneapolis.

The award is made possible by funds provided by Rose and Jay Phillips of Minneapolis. Winners receive a miniature bronze casting replica of the Paul Granlund statue, "Spirit of Courage," which stands at Courage Center.

Courage Center is a nonprofit United Way organization that provides rehabilitation and independent living programs for children and adults with physical disabilities and speech, hearing and vision impairments. Last year, more than 15,000 people throughout the United States benefited from Courage Center services.

ASHA Convention Set

The American Speech-Language-Hearing Association's (ASHA) 1987 Annual Convention is scheduled for November 13-16.

For further information write to ASHA Annual Convention, 10801 Rockville Pike, Rockville, Maryland 20852. Telephone: (301) 897-5700.

Arborist Association Pledges 5,000 Jobs

The National Arborist Association (NAA) has pledged that 10 percent of all 1987 arboriculture hires will be workers with developmental disabilities.

This effort, which will add approximately 5,000 developmentally disabled people to NAA payrolls this year, is in support of the Employment Initiative of the Administration on Developmental Disabilities, Office of Human Development Services, U.S. Department of Health and Human Services.

Migel Awardee Named

The American Foundation for the Blind (AFB) has named Edna Bonn Russell, Ed.D., of Atherton, California, to receive the 1987 Migel Medal honoring professionals and volunteers whose dedication and achievements have significantly improved the lives of blind and visually impaired people.

The Migel Medal was established in 1937 by AFB's first president, the late M.C. Migel. Two medals are awarded annually, one to a professional in the blindness field and one to a layperson.

Dr. Russell, a noted gerontologist, will receive the Migel Medal in the layperson category.

Percentage of Disabled Freshmen Increases

The percentage of college freshmen with disabilities has tripled in the past 7 years, according to a report prepared by the HEATH Resource Center of the American Council on Education (ACE) and the President's Committee on Employment of the Handicapped (PCEH).

The report, *College Freshmen with Disabilities Preparing for Employment*, states that the proportion of freshmen with disabilities attending college full time increased from 2.6 percent in 1978 to 7.4 percent in 1985.

This increase "is a tribute to the Rehabilitation Act of 1973," said PCEH Chairman Harold Russell. Section 504 of the Act requires colleges and universities to make their programs accessible to students with disabilities.

The report estimates that if there were full participation for disabled people 8.5 percent of college freshmen would be disabled students.

Copies of the report are available from HEATH Resource Center, ACE, One Dupont Circle, Suite 800, Washington, D.C. 20036.

AFB Receives Award

The President's Committee on Employment of the Handicapped (PCEH) has selected The American Foundation for the Blind (AFB) to receive the 1987 President's Committee Book Award for its Textbook, *Foundations of Education for Blind and Visually Handicapped Youth: Theory and Practice*.

Edited by Geraldine Scholl, Ph.D., retired professor of education at the University of Michigan, Ann Arbor, and published by AFB in 1986, the text features a foreword by pioneering educator Berthold Lowenfield and contributions from 26 other leading blindness specialists and educators. It presents the most current theories and practices in the education of visually handicapped children and youth and is designed for students preparing to become special education teachers and for practicing teachers who want to update their knowledge on visually handicapped pupils.

The book is available in print or on cassette for \$32 prepaid from Publications and Information Services, American Foundation for the Blind, 15 West 16th Street, New York, New York 10011.

Dr. McClellan Awarded PVA Research Grant

The Spinal Cord Research Foundation of the Paralyzed Veterans of America (PVA) recently awarded a grant to Dr. Andrew D. McClellan for the second year of his research project, "Spinal Cord Regeneration of Descending Locomotor Command Systems in Lower Vertebrate, the Lamprey."

Dr. McClellan will continue his study of the organization and operation of selected sets of nerve cells in the brainstem called "command systems." Spinal cord injury prevents the com-

mand system from activating the spinal cord below the point of injury to produce movement. Using a chemical to stimulate neurons — nerve tissue cells — in the command system, Dr. McClellan is looking at the way these neurons connect to the spinal cord before and after injury, and how they initiate body movement.

This project is also supported in part by the National Spinal Cord Injury Association.

Dr. McClellan is a research associate in the Department of Physiology and Biophysics at the University of Iowa, Iowa City.

PVA, a veterans service organization chartered by Congress, has for 40 years served the needs of its members, all of whom have catastrophic paralysis caused by spinal cord injury or disease.

Dickerson Elected New CSAVR President

Altamont Dickerson, Jr., Commissioner of the Virginia Department of Rehabilitative Services, was voted President of the Council of State Administrators of Vocational Rehabilitation (CSAVR) at the council's spring meeting in Alexandria, Virginia.

Mr. Dickerson replaces Paul Dziedric, Director of Services for the Blind in the State of Washington.

CSAVR represents 83 agencies that provide services to persons with physical and mental disabilities in the 50 states, the District of Columbia and five U.S. territories. Founded in 1936, the organization serves as a resource for the formulation and expression of the collective points of view of the state-federal supported agencies on all issues affecting the provision of services to disabled people. Through a national committee system and its Washington, D.C., office, CSAVR expresses its views to the public, other organizations, federal agencies, and Congress. The CSAVR

membership collectively represents annual expenditures of approximately \$1.3 billion.

Outlining his views, Mr. Dickerson said, "The public needs to know that each rehabilitation agency operates a cost-effective program which returns money to the economy. It's a program where everyone wins." Rehabilitated citizens, he added, repay many times the cost of their rehabilitation through tax payments when they become productive, contributing workers.

504 Celebration Set

The 10th National Conference of the Association on Handicapped Students Service Programs in Postsecondary Education (AHSSPPE) is scheduled for July 22-25 in Washington, D.C., and will celebrate AHSSPPE's 10th anniversary and the 10th anniversary of Section 504.

For further information, contact Linda Donnels, Disabled Student Services, George Washington University, Rice Hall, Suite 401, Washington, D.C. 20052. Telephone: (202) 994-8250 (voice/TDD).

Rehabilitation Medicine Conference Scheduled

An assortment of courses, seminars and workshops covering a wide range of rehabilitation topics are scheduled for presentation at the 1987 combined annual meetings of the American Congress of Rehabilitation Medicine (ACRM) and the American Academy of Physical Medicine and Rehabilitation (AAPM&R) October 18-25 at the Marriott World Center Resort in Orlando, Florida.

Among the topics slated for discussion at the meetings are sports medicine, new technologies and techniques in rehabilitation, legal issues, pediatric

rehabilitation, chronic pain, and evoked potentials. More than 2,000 physicians, nurses, physical therapists, occupational therapists, speech pathologists, psychologists, and social workers are expected to attend these meetings.

For further information contact Fay Kaye, Convention Manager, ACRM/AAPM&R, 130 South Michigan Avenue, Suite 1310, Chicago, Illinois 60603. Telephone: (312) 922-9366.

Rural Rehab Conference Scheduled for October

The Third International Conference on Rural Rehabilitation Technologies has been set for October 20-22 at the University of North Dakota.

The conference will focus on technology that will assist disabled people in farming, independent living and recreation.

WIN Counts Successes

The Work Information Network (WIN) project has been brought to a successful completion, the National Association of Rehabilitation Facilities (NARF) announced recently.

WIN was funded by the Administration on Developmental Disabilities (ADD), U.S. Department of Human Services, from August 1985 through January 1987 as part of its Employment Initiative, which focused on activities to promote and expand employment opportunities for developmentally disabled people.

WIN materials were distributed to over 80,000 businesses nationwide. An additional 30,000 businesses were reached through radio news releases, magazine articles and other promotional outlets.

The WIN network included 750 community-based rehabilitation facilities and a number of national and state

rehabilitation organizations. WIN facilities placed nearly 10,000 developmentally disabled adults into competitive job openings. In addition, WIN placed another 250 businesses in direct contact with the rehabilitation facility in their area.

Boston U Announces Deaf Studies Master's Program

The Boston University School of Education has announced a specialization at the master's level (leading to the Ed.M.) and the post-master's level (leading to the Certificate of Advanced Graduate Studies, or C.A.G.S.) in American Sign Language and Deaf Studies.

This full-time, one-year program is devoted to the study of American Sign Language (ASL) and deafness in their social, historical, psychological, and cultural settings.

The master's degree is designed for people from a variety of fields who are interested in ASL or deafness and wish to enhance their knowledge and experience to further professional growth.

ASL/Deaf Studies integrates both deaf and hearing faculty, consultants and students. Deaf and hearing-impaired students are encouraged to apply. Interpreters and support services are currently available.

Financial aid is available and will be awarded on a competitive basis. Applications are accepted throughout the year for both full- and part-time study. Successful candidates may register the semester following admission.

For more information, write to: Robert J. Hoffmeister, Ph.D., Coordinator, Education of the Hearing Impaired Programs, Boston Univer-

sity, School of Education, 505 Commonwealth Avenue, Boston, Massachusetts 02215.

Disability Management Survey Completed

With costs for disabled employees at nearly \$40 billion per year for U.S. businesses and twice that amount for government funded programs, employers are beginning to develop effective strategies for managing these costs, according to a recent survey from the Institute for Rehabilitation and Disability Management, Washington, D.C.

Studies have shown that employers can significantly cut their disability costs and return employees to a productive worklife by carefully managing these cases. Among the disability management strategies being used by the 181 major U.S. employers responding to the survey are job accommodation, vocational rehabilitation, certification and recertification of disability, return-to-work policies and programs, and the coordination of disability programs and benefits.

Copies of the complete survey are available for \$20 from the Washington Business Group on Health, Institute for Rehabilitation and Disability Management, 229½ Pennsylvania Avenue, SE, Washington, D.C. 20003. Telephone: (202) 547-6644.

Health Agencies Increase Research Funding

Recently released figures from the National Health Council show that the nation's leading voluntary health agencies provided nearly \$123 million to support biomedical research in 1984—a 10 percent increase over such funding in the prior year.

TOPIC OF STATE

Disability Information Provided Quickly, Free in Illinois

In Illinois, information about disability and health care equipment, research and other needs is available through a centralized statewide information referral system called ABLEDATA, funded by the Illinois Department of Rehabilitation Services.

With one toll-free call to 1-800-447-4221 (voice/TDD), disabled people, rehabilitation professionals, public and private agency personnel, and others can access a computerized listing of references to journal articles on rehabilitation, syndromes and disabilities and more than 10,000 commercially available aids.

ABLEDATA, a database published by the National Rehabilitation Information Center, is operated by the Springfield Center for Independent Living (SKIL), part of a statewide initiative to develop and expand independent living services for disabled people. SKIL staff can mail information requested within 48 hours.

ABLEDATA is part of a national information network, but is unique in that there is no charge to users of the system.

For further information write to SKIL, 426 W. Jefferson, Springfield, Illinois 62702.

Cooperative Agreement Signed in Virginia

A new partnership between Montgomery Ward and the Virginia Department of Rehabilitative Services (DRS) promises to enhance employment opportunities for disabled people in Virginia through the provision of on-

location training at all 11 Montgomery Ward retail stores in the Commonwealth.

DRS, the state agency responsible for helping the disabled find jobs, will work with the private retailer by first making on site reviews and evaluations and determining, in general, training program possibilities. The agency will then begin referring qualified persons with disabilities to the Montgomery Ward stores for positions.

Once an employee is hired, DRS will pay up to 50 percent of the wages during the basic training period and will reimburse Montgomery Ward for all goods properly provided during this time.

The state and the retailer will work together developing a training curriculum for each program participant and will issue routine employee progress reports.

A Montgomery Ward spokesman said the company has similar agreements with vocational rehabilitation agencies throughout the country. The Virginia arrangement, however, is the first statewide formal agreement of its kind that DRS has made with a private retailer.

IBM and Illinois Launch "Program Able"

The Illinois Department of Rehabilitation Services (DORS) is funding a 12-month course in computer programming that is the first of its kind in the state.

"Program Able" combines the skills of IBM and the El Valor Corporation, a Chicago based nonprofit community rehabilitation center for disabled people.

Last fall, when 14 people with physical disabilities began computer training at El Valor's downtown Chicago facility, Program Able became one of only 30 similar programs across the nation.

Through formal training, the program provides opportunity for disabled people to join the competitive work force as highly trained computer programmers. Program participants are also allowed increased opportunities for social and educational growth.

In addition to assistance from IBM, Program Able receives community support and guidance from managers of 30 major companies that are members of the Chicago Business Council.

Program Able is patterned after other successful projects operating in other states with the help of local business advisory councils (BAC's) which lend their expertise, equipment and facilities to develop the projects. Chicagoland BAC is involved in all aspects of the computer training. Various committees that focus on selection, curriculum, evaluation, placement, and public relations have been formed to oversee the program.

Candidates for the program must meet specific standards and are interviewed and tested for computer programming aptitude and other skills. Once accepted, students attend classes for 8 hours a day, 5 days a week. Extensive progress evaluations are conducted during the program.

Further information about computer training or other El Valor programs is available from Michael A. Barrientos, Program Able project director, 815 West Van Buren Street, Chicago, Illinois 60607. Telephone: (312) 421-0510.

AR Audio Cassettes Now Available

Taped copies of *American Rehabilitation* are available to blind and physically handicapped people through regional offices under the National Library Service for the Blind and Physically Handicapped. Contact your public library for the location of the regional library which serves your state.

PUBLICATIONS & FILMS

Adult Foster Care Journal. Volume 1, Number 1. Spring 1987. John M. McCain, editor. Margaret W. Linn, James Intagliata and Leo Scrole, co-editors. Human Sciences Press, Inc., 72 Fifth Avenue, New York, New York 10011-8004. 68 pages. Subscriptions are \$69 per year for institutions and \$29 for individuals.

This journal seeks to improve clinical practice in service delivery, improve communication among professional mental health personnel, stimulate more theoretical and empirical research, and influence politicians and social policy makers toward the development of a uniform national policy on adult foster care. This first issue featured the following articles: *Psychiatric Deinstitutionalization and Social Policy: Implications for Adult Foster Care*; *Adult Foster Care: Old Wine in a New Glass*; *The Social Environment of Boarding Homes*; *Small Town Streets and Country Lanes*; and *An Unexpurgated Glossary of Adult Foster Care Terminology*.

Annual Review of Rehabilitation. Volume 5. Elizabeth L. Pan, Ph.D., Sheila S. Newman, M.S., C.R.C., Thomas E. Backer, Ph.D., and Carolyn L. Vash, Ph.D., co-editors. Springer Publishing Company, 536 Broadway, New York, New York 10012. 298 pages. \$37.95.

Subjects covered in this volume include a review of peer-provided rehabilitation counseling; an update on occupational therapy; recent trends of international cooperation; a discussion of career development services for youth with physical disabilities; uses of the computer for rehabilitation administration in public and private agencies; a

state-of-the-art review of corporate activities in rehabilitation, including a definition of disability management and an analysis of leading corporate programs in the United States; services to the disabled offered in rural areas; and an overview of programs and services for vocational rehabilitation of the chronically mentally ill, emphasizing both services offered in mental health settings and those provided by rehabilitation agencies.

The Activities Catalog: An Alternative Curriculum for Youth and Adults with Severe Disabilities, and A Comprehensive Guide to The Activities Catalog. Barbara Wilcox, Ph.D., and G. Thomas Bellamy, Ph.D. Paul H. Brooks Publishing Company, P.O. Box 10624, Baltimore, Maryland 21285-0624. Catalog, 96 pages, \$24.95 (package of three catalogs); guide, 208 pages, \$29.95 (book accompanied by a single catalog).

The catalog is a field-tested curriculum designed to help prepare young disabled adults for integrated home, leisure and work settings. The guide is a companion volume explaining the important curriculum functions of the catalog, including assessment, design of intervention strategies and program evaluation.

The Political Economy of Developmental Disabilities. Paul J. Castellani, Ph.D. Paul H. Brooks Publishing Company, P.O. Box 10624, Baltimore, Maryland 21285-0624. 202 pages. \$19.95, paperback.

In striving to provide a framework for understanding the dynamics of a dramatically changing service system, this book describes the powerful political, economic and social forces that

have affected deinstitutionalization and the growth of community-based services. The author offers his insights into the future of these services and the changing roles of federal, state and local governments and the private sector in the decision making, financing, organization, and delivery of community-based services.

Assessment of Individuals with Severe Handicaps: An Applied Behavior Approach to Life Skills Assessment. Paul H. Brooks Publishing Company, P.O. Box 10624, Baltimore, Maryland 21285-0624. 312 pages. \$23.95, paperback.

From skill selection and IEP development to final program evaluation, this is a guide to assessment for use in all phases of educational programming for learners with severe handicaps. It provides advanced applied behavior analysis techniques with community-referenced life skills curriculum planning. Detailed case histories, checklists, graphs, forms, and evaluation sheets are provided to help educators master curriculum design, formulation of task analyses, and collection and evaluation of data.

The High-Risk Neonate: Developmental Therapy Perspectives. Edited by Jane K. Sweeney. The Haworth Press, Inc., 12 West 32nd Street, New York, New York 10001. 338 pages. \$34.95, hardback.

How the professional can provide safe and therapeutic intervention for high-risk neonates and their parents is explored by experts in the field, as this volume addresses the major challenges facing practitioners of the new and exciting subspecialty of pediatric therapy practice — neonatal treatment.

Computers and Exceptional Individuals.

Jimmy D. Lindsey. Merrill Publishing Company, 1300 Alum Creek Drive, P.O. Box 508, Columbus, Ohio 43216-0508. 381 pages. \$18.95, paperback.

This text provides practical discussion of current computer technology for use with handicapped and gifted/talented persons. It delineates specific and generic computer concepts presently being used with and by exceptional individuals.

They Grow in Silence. Understanding Deaf Children and Adults.

Edited by Eugene D. Mindel and McCay Vernon. Published for the National Association for the Deaf. College-Hill Press, a Division of Little, Brown and Company (Inc.), 34 Beacon Street, Boston, Massachusetts 02108. 204 pages.

Subjects covered in this second edition include the impact of deaf children on their families; the primary causes of deafness; audiology and the hearing impaired child, current and future needs; recent advances in the diagnosis of hearing loss in newborns and infants; emotional illness and the deaf; deaf parents of hearing children; language and the young deaf child; educational practice and the deaf child's communication skills; and deaf people and work.

Common Disorders of the Hip.

Mary C. Singleton and Eleanor F. Branch, co-editors. The Haworth Press, Inc., 12 West 32nd Street, New York, New York 10001. 116 pages. \$22.95 hardback.

This is a monograph also published as the journal, *Physical Therapy in Health Care*, Volume 1 Number 1. Expert contributors provide current information on such topics as anatomy, biomechanics, medical evaluation, epidemiology, surgery, and preoperative and postoperative physical therapy.

The Coping Capacity: On the Nature of Being Mortal.

Avery D. Weisman, M.D. Human Sciences Press, Inc., 72 Fifth Avenue, New York, New York 10011. 165 pages. Hardback, \$26.95; paperback, \$12.95.

Combining practical instructions with clinical examples, this book examines how to help patients cope not only with the approach of death, but also with those losses, mortal and moral, which they face each day. It begins by examining the ways in which patients come to terms with cancer, followed by a review of 15 common forms of coping — resignation, laughter, denial, and so on — and a discussion of what constitutes “good coping.”

Treatment of the Chronic Schizophrenic Patient.

Edited by Diane Gibson. The Haworth Press, Inc., 12 West 32nd Street, New York, New York 10001. 87 pages. \$24.95, hardback.

Among the topics addressed in this volume include chronic schizophrenic patients in a long-term private inpatient setting, day activities programming for the severely impaired chronic client, and how to predict successful employment in the community for people with a history of chronic mental illness.

The Great Equalizer.

Rick Borsten. The Permanent Press, Noyac Road, Sag Harbor, New York 11963. 334 pages. Hardback, \$18.95.

This is a novel set in a halfway house for retarded adults. The author raises many important issues concerning the perceptions and premises by which custodians care for the handicapped. This first effort by Rick Borsten has won praise from book critics around the country. Film rights have been sold to Fireside Productions' Chiz Schultz, whose last film, *A Soldiers Story*, earned three Academy Award nominations.

10 Years Later

(Continued from page 3.)

cies that would result in a backlash against Section 504. Whatever their motives, they were in for a surprise. Federal agencies by and large have accepted the new responsibilities Congress gave them with equanimity and grace. Today, when a person with a disability wants to attend a meeting in a federal building or participate in a program sponsored by a federal agency, there is assurance that reasonable accommodations will be made. Deaf people, for example, may request, at no cost to them, that public meetings be interpreted for their benefit.

Grove City

A Supreme Court decision in the mid-1980's caused much anguish among advocates for people with disabilities. At issue was not Section 504 but Title IX, the federal statute protecting the rights of women in higher education and other programs. The Court said that only those specific programs in a college that benefited from federal grants were subject to the Title IX requirements. Because Title IX, like Section 504, is modeled after Title VI, the civil rights statute for members of racial and ethnic minority groups, there was concern that blacks, persons of Hispanic origin and people with disabilities would all suffer by the Court's narrow interpretation in *Grove City*.

Many members of Congress emphatically disagreed with the Court's decision. Legislation was introduced to overturn the decision. However, in 1985 and again in 1986, Congress was unable to pass amending legislation. There is some hope that the 100th Congress will at last clarify its intent. I believe that Congress wants the entire university to be subject to equal opportunity processes and that these are to protect women, members of

I believe that Section 504 has proven to be the most far-reaching, all-encompassing civil rights statute ever enacted on behalf of people with disabilities.

minority groups and people with disabilities.

Employment

Section 504 protects not only people who use the services of federally supported programs and activities, but also individuals with disabilities who apply for or work in these programs. We have seen important progress in employment for persons with disabilities since the signing of the rule. I have been impressed by the efforts of colleges, schools and programs specializing in services for people with disabilities to remove from their position descriptions any language that might discriminate against applicants with disabilities. But the requirements took effect just as the country was entering the first of three successive recessions. The recession of 1981-1982, widely regarded as the most severe since the Great Depression, in particular greatly limited the number of openings for which people with disabilities could apply.

The cutbacks in social service funding that we have seen since 1981 also played a role in limiting the impact of Section 504 in employment. Many programs serving people with disabilities have had to reduce, not expand, employment. Colleges and universities have been restricted not only by shrinking federal grants but also by declining enrollments and the after-effects of the huge energy cost increases of the late 1970's.

We have seen since 1981 yet another massive change in employment patterns. Almost 95 percent of the 13 million jobs that have been created in the past 6 years have been in the so-called "services" sector. Many of these are low-paying,

low security positions. In addition, public and private agencies have turned more and more to part-time employees and to private contractors rather than to full-time employment to meet their needs.

All of these factors have combined to make the impact of 504 on employment for persons with disabilities much less than I had hoped it would be. Yet, as the recovery from the 1981-1982 recession enters its fifth year, we may yet see

Today, some 7 percent of all college freshmen are students who are disabled.

renewed growth in opportunities for people with disabilities to seek, and get, well-paying, secure jobs now that 504 protects them from unjust discrimination in employment.

Next Steps

I believe that Section 504 has proven to be the most far-reaching, all-encompassing civil rights statute ever enacted on behalf of people with disabilities. It has had a massive and overwhelmingly positive impact on our lives.

I have been particularly delighted to see that young people who are disabled are taking these rights "for granted." Most never heard of Section 504; certainly they never heard of the American Coalition of Citizens with Disabilities. And there is no reason why they should. These rights have become part of the climate in which they live. The rights some of us fought so hard for, and so long wondered if we would ever achieve,

seem "natural" and "right" to today's generation of young people with disabilities. As indeed they are.

For advocates, of course, the rights that 504 established are the "benchmark" upon which further progress will be measured. An advocate is never satisfied, and rightly so.

Section 504, as good as it is and as good as it has been, is not enough. We must do more. And indeed, the National Council on the Handicapped, an independent federal agency, has proposed that the Congress enact a sweeping new civil rights statute for people with disabilities that would build upon the foundation we have established under Section 504 and take these rights to their logical conclusion. The council's recom-

mendations are sound and well-thought-out. They deserve the support of all Americans with disabilities and all who support our efforts for equal treatment under law.

Ten years from today, as we celebrate the 20th anniversary of the signing of Section 504, perhaps we will regard it as only the first step. If so, no one will be more pleased than I.

Frank Bowe was executive director of the American Coalition of Citizens with Disabilities when the Section 504 regulation was signed. Today, he is chairperson of a commission created by Congress to investigate education of people who are deaf. Dr. Bowe's newest book is *Changing the Rules* (TJ Publishers, Silver Spring, MD).

Media

(Continued from page 7.)

the fact that disability does not have to be distorted to capture audiences and a successful box office. Entertainment programs continue to need careful monitoring and organized efforts to improve them substantially. TV soaps, sitcoms, horror movies, MTV, and even bubble gum cards require scrutiny and organized response. Profit-making films respond to market pressures.

The 1980's have witnessed a mini-explosion of commercial interest in the disability market. Major corporations, including IBM, ITT, AT&T, MacDonald's, Chrysler Corporation, and a host of others are including real disabled people in their product advertising and finding that it pays.

504 has made important contributions to the media. Perhaps its single most significant contribution was the legitimizing of disability. Prior to 504, disability was a "special" topic, removed from society's concerns. Much of the media treatment of disability prior to 504 reflected this "segregated" and "special" attitude. 504 legitimized disability by identifying people with disabilities as a group that had suffered discrimination and that were due justice and equality. It was a bold concept and one that took the interest of the media as well as the wrath of many of those most directly impacted by 504 (*i.e.*, hospitals, universities, *etc.*). 504 attracted media attention, frequently because of the wrath exhibited by those affected by it and the conflicts that arose when the law was applied. The Education of All Handicapped Children Act and the other significant sections (501 and 503) of the 1973 Rehabilitation Act also generated media attention and furthered the legitimacy of the disability movement.

The complexities of disability continue. AIDS has entered the picture. Street people and surrogate mothers vie for public attention, legislation, programs, and funds. The competition is fierce. The funding is uncertain. The national deficit is huge. The defense budget absorbs tax dollars unceasingly. 504 no longer confers urgency. The American Coalition of Citizens with Disabilities is out of business. Educated, talented people with disabilities are taking advantage of the new opportunities available to them, thanks to the legislation and consumer movement of the 1970's, without a backward glance.

504 and the disability movement are maturing. There are fewer confrontations in the streets, albeit ADAPT is keeping the American Public Transit Association alert to transportation needs of disabled people through direct action. There were significant legislative victories in the 99th Congress, including Social Security work incentives. Both Presidential candidates in 1984 paid attention to the issues of disability, and as the 1988 campaign heats up, disability issues appear to be an integral part of campaign strategies.

News coverage of disability issues is improving. Mary Gresham, reporter and anchor for WDAF-TV, Channel 4, Kansas City, won the 1987 Media Award, cosponsored by the President's Committee on Employment of the Handicapped and the American Association of Disability Communicators, for her five-part primetime news series on the current situation facing disabled people in Kansas City. The coverage is straight and intelligent and conveys the urgency of the issues confronting disabled people in the community.

Disability today is also receiving serious academic interest led by Harlan Hahn, Ph.D., of the University of

Southern California, Irving Kenneth Zola, Ph.D., of Brandeis University, Harold Yuker, Ph.D., of Hofstra University, and scores of others on campuses from coast to coast. Networking is booming, led by groups like the National Council on Independent Living, whose president is Marca Bristo; Handicapped Organized Women, led by Deborah McKeithan; and Facing the Challenge, founded by Ted Kennedy, Jr. These organizations attract serious media attention and commentary. Government programs concerning disability issues are led by respected people with disabilities, such as Justin W. Dart, Jr., Commissioner of the Rehabilitation Services Administration; David B. Gray, Director of the National Institute on Disability and Rehabilitation Research; and Lex Frieden, Executive Director of the National Council on the Handicapped. Some of the major media outlets with current serious articles on disability issues include *USA Today*, *Forbes* magazine, *The Wall Street Journal*, *The New York Times*, and *National Public Radio*. New columnists and writers are proliferating in newspapers from coast to coast, including Diane B. Piastro, another 1987 Media Award winner, for her column in California, "Living with a Disability." 504 legitimized disability as a national issue. People with disabilities, professional organizations and advocates can together keep the momentum going.

Mr. Ruffner is Director of Public Affairs, President's Committee on Employment of the Handicapped, Washington, D.C.



Technical Communication

(Continued from page 11.)

matched with the proper device. The one which is ultimately recommended must fit their physical abilities as well as meet their vocational and other needs identified earlier in the assessment process.

During the client's second visit to the center, the technical assessment is conducted by the project's rehabilitation engineer, who has also observed the client's cognitive/communication assessment. The physical/technical assessment assists in matching cognitive and physical abilities with available communication devices. Such a determination is made following evaluation of the client's potential anatomical control sites, usable modes of interfacing with devices, preferred symbol system, and such considerations as communication rates using various devices.

For a device to be suitable, the client must be able to carry it or have it mounted on a wheelchair or workstation so it can be used effectively. Physical factors that influence whether a client can adequately operate a device include sensory and motor skills. Sensory skills determine the appropriate type and size of the display and the necessary feedback from the device. Motor skills determine that manner of access, the selection mode (*i.e.*, scanning or direct selection), the suitable anatomical control sites (finger, hand, arm, knee, head, *etc.*), the size and arrangement of keys, sound or light activation, and the best mounting position for the device. For clients who have some use of their hands, their ability to grasp objects of various sizes and shapes is carefully documented and their range of motion is measured. For those who cannot use their hands to manipulate switches or keyboards, an assessment of alternate control sites for operating the device is made.

Based on earlier observations during the cognitive and communication assessment, the rehabilitation engineer often knows whether the client will be able to directly select inputs on a communication device or whether a scanning input mode will be necessary. Nevertheless, various selection methods are evaluated to determine which one is more rapid, accurate and easier to use. In the case of some progressively disabling conditions, a client may need to be prepared to move from a device that uses direct selection to one that uses scanning. The Assistive Device Assessment Program owns several commercially available communication devices and can simulate features of some others using software for the Apple IIe. This repertoire of devices permits clients to experience using various devices and enables program staff to assess client ability to use them.

One of the biggest problems in communicating with an augmentative device is the slow rate of communicative interactions.⁸ Even when communication partners are very sympathetic, it is hard to sustain an interaction if the user takes too long to compose a message. Therefore, the technical assessment includes timed tests of clients using various types of communication devices or, at least, performing tasks which simulate their use.

Sometimes, results of technical assessment indicate that a client could use one or more of the available systems if additional rehabilitation services were available. Examples of needed services for which we have referred clients include seating and mobility evaluation, lap tray and hand splint procurement, and physical fitness activities.

Device Procurement

Once it is clear that the client can use an electronic communication device, staff considers the issues of device

suitability for the vocational setting, timely procurement of the device, and provision for training the client in its use. Although the flow chart indicates that these issues are sequentially considered, the lengthy procurement process requires that they be addressed in parallel.

Unless it can be demonstrated that an augmentative communication device would make a client employable almost immediately, a funding source for the device by an agency other than the Department of Rehabilitation must be found. Procuring a device under these circumstances is usually a lengthy and highly problematic process. For this reason, it is not feasible to wait for the client to complete the vocational readiness program before a communication aid is prescribed.

The client's potential vocational activities are considered in recommending a device, but his/her current situation is used to document the benefits which would accrue from having the device. For example, a team member went to a United Cerebral Palsy Center each week for several months to record changes in the social interaction and task achievement of a project client using the recommended augmentative communication device (ACS SpeechPac), which the project had loaned him. Although this man will probably remain in a pre-vocational setting for a while, the San Diego Regional Center for the Developmentally Disabled paid for this device based on the documented improvement in his personal independence. Other clients may have the recommended devices purchased through Med-i-cal, if we can document both that they can use the device and that having the device is a medical necessity (*i.e.*, they have no other way of communicating a medical emergency or some other urgent need).

Funding remains much more problematic for people who can neither document a medical necessity nor

An important feature of the project has been the development of rapid, targeted assessment.

demonstrate enough job readiness to qualify for state vocational rehabilitation services. If their disability occurred after 18 years of age, they are also ineligible, at least in California, for services through the Regional Center for the Developmentally Disabled and most other government programs. A few may have Veterans Administration or private insurance benefits, but most must rely on the generosity of private groups such as churches and service organizations.⁹

Once the recommended device is procured (either permanently or on loan from a manufacturer), a member of the project team trains the client in its use. Also included in this training are co-workers and other communication partners. As Arlene Kraat has pointed out in a recent report describing the activities of the International Project on Communication Aids for the Speech Impaired,¹⁰ the use of augmentative communication by one participant in an interaction changes the interaction in important ways that are just beginning to be understood.

Vocational Placement Assistance

When this project was originally conceived, it was assumed that most clients would either be referred by the State Department of Rehabilitation or would have a vocational plan in place. Consequently, if the series of assessment procedures showed that the client could communicate significantly better with a commercially available (or easily modified) augmentative communication device, funding for the device would likely be provided through rehabilitation. (See the left side of the Flow Chart.) The main intermediate step would be an analysis of the client's worksite to assure that the recommended device was compatible with the

special features of that setting. To our surprise, only two of the clients thus far have fallen into this expected pattern.

The majority of the project's clients have been classified as possessing no vocational potential, and much of their education and life experiences have taught them to be dependent and non-self advocative. The process by which the project offers vocational assistance is outlined by the lower left of the flow chart. If a client has the cognitive and physical abilities to use a communication device but has no vocational plan, a specialist in vocational rehabilitation counseling performs a Vocational Aptitude Evaluation using the McCarren-Dial and Perceptual Memory Task,¹¹ a "transferable skills" computer matching, or other appropriate assessment tools. Information gained from these tests and during the cognitive evaluation enables the team to identify what types of jobs *could* be performed by this client.

As part of our job readiness assessment, the client's living arrangements, access to transportation and attendant care, vocational aspirations and experience, and educational background are considered by the rehabilitation engineer and the vocational rehabilitation specialist. If the results of this assessment indicate the client is ready for employment but is not also a client of the Department of Rehabilitation, then advocacy on his/her behalf for acceptance is initiated using reports of the client's cognitive and communication abilities along with any training data as supporting documentation.

If the client is not job ready, the potential barriers to holding a job are examined and necessary remedies are sought. Efforts to resolve some of these barriers frequently involve forming

linkages with appropriate social agencies, especially the Department of Rehabilitation.

In parallel with efforts to establish beneficial linkages with outside agencies, the project team also searches out possible ways of obtaining "work" experiences for the client. For severely disabled clients with little or no prior work experience, job placement into a permanent position is often very difficult. In order to document employability, trial or temporary employment of the client (even on a volunteer basis) may be necessary. Work experiences such as computer data entry in the office of the local United Cerebral Palsy Center, clerical work with the campus physical plant, part-time work at nearby sheltered workshops, temporary employment in government agencies that serve the disabled, jobs with Goodwill Industries or academic institutions, and other supported work situations can offer opportunities to gain this type of realistic testing of employability.

The placement of a client into either a temporary or more permanent type of position is always preceded by an analysis of the job and its communication requirements. Job analysis includes clear descriptions of the tasks to be done, level of cognitive skills necessary, nature of the required co-worker communication, accessibility of the worksite, and flexibility of the job.

In placing persons with severe physical limitations, flexibility within the employment situation is very important. Often, successful placement may depend on the removal of one particularly difficult task from a job, slight re-scheduling of work hours to accommodate transportation needs, and/or the alternative placement of work items. Although such job re-designs require little or no cost, employer flexibility and willingness to accommodate the new and

different worker are necessary components of successful employment.

Once the client has an adequate communication device for the probable work environment, a training program is initiated to develop effective communication skills for that workplace. The type of training program depends on the nature of the messages to be sent, the desired speed of communication, and the interactive behaviors of the client and co-workers. One part of the training program focuses on techniques for repairing communication breakdowns. Most clients require 3 to 6 months of training for communication competence in the workplace.

As part of our efforts to improve placement procedures and to provide ongoing support to the client and employer, evaluations of the client in the workplace are scheduled at 1, 3 and 6 months after employment begins. The evaluations focus on the following:

- adequacy of the match between job requirements and the client's functional abilities (physical and communicative);
- adequacy of the prescribed communication aid to meet the communication demands of the workplace;
- adequacy of the client's work (*i.e.*, attendance, productivity, punctuality, co-workers' reactions and attitudes, supervisors' evaluations, and client's psychosocial adjustments); and
- effects of vocational use of the communication aid on the use of that aid in other settings (home, social gatherings, *etc.*).

The criteria for determining acceptable work performance include comparative check lists, personal interviews, and supervisor evaluations. One specific concern in evaluating the client's performance involves finding the cause(s) for any marginal behavior. For example, if a client makes extraordinary requests for

... the use of augmentative communication by one participant in an interaction changes the interaction in important ways that are just beginning to be understood.

assistance, were these requests due to his/her disabilities, inadequacies in communication skills or device, or lack of prior work experience? If the client is not accepted by his co-workers, was it due to the client's personality, attitudes of his co-workers, or inadequacies of his communication system?

Conclusions

In retrospect, our project has revealed several areas of concern; these concerns will probably be common to others who embark on similar endeavors. While the assessment process has proven to be relatively straightforward, implementing the recommendations from the assessment has been somewhat difficult. These problem areas relate to the availability of the device for extended trial use, procurement of the recommended communication device, and job readiness of people who are severely physically disabled.

To clearly document the suitability and benefits of the recommended device, the availability of that device for assessment and subsequent training is often necessary. Unfortunately, some manufacturers may be unable or reluctant to loan their expensive equipment without significant rental fees, especially for extended training periods. To properly assess, train and assist in the procurement of an assistive device, a project such as ours must possess a wide variety of communication devices and their add-ons, as well as the capability to simulate other devices. The wide variety is needed to simultaneously serve several clients who have differing abilities.

Another problem area, albeit one that is neither new nor unexpected, has been

the lengthy device procurement process. This process begins with the identification of an appropriate source of funding — a major problem for some clients with an etiology of head trauma occurring after 18 years of age. Once a potential funding source has been found, a substantial amount of time is needed to document the need, benefits and suitability of the device and to obtain agency approval. Because device procurement tends to be very time consuming with no certainty of success, the overall vocational rehabilitation timetable for the client must take this delay into account.

It was also mentioned earlier that another major unexpected problem in the project was the poor job readiness of clients. This has necessitated several additional steps to enhance their employability. Participation in a special physical fitness program has enabled several clients to gain the necessary physical strength and stamina. Occupational therapists have helped some of our brain injured clients to attend to tasks for longer periods of time, and counselors have worked with families to develop new ways of relating to one another which support progress toward employment. For example, the overinvolvement of a parent or spouse may lead to unnecessary dependence. For those who have not previously worked or whose personalities have been significantly altered by brain injury, trial employment and training for appropriate on-the-job behavior are sometimes also necessary.

In spite of the difficulties encountered, the demonstration project has been very worthwhile in several respects. The project provides a much

needed community service, one that is unavailable elsewhere in the area. Another benefit is the active involvement of graduate students on the interdisciplinary team, which has expanded their problem solving skills through a practical clinical experience. The project's efficient, targeted assessment procedures have been successfully used to support the procurement of much needed communication devices for several of the clients. In addition, the project has clarified several important issues which affect employability enhancement through technical communication devices and the translation of that enhancement into vocational rehabilitation of severely communicatively impaired individuals.

Dr. Szeto is Professor of Electrical and Computer Engineering and Co-Director of the Assistive Device Assessment Program (ADAP); Dr. Allen is Associate Professor of Communicative Disorders and Director of ADAP; Dr. Rumelhart is Associate Professor of Social Work and Director of the Clinical Training Center. All are at San Diego State University.

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Partnerships

(Continued from page 13.)

new partners in recent years, such as Student Financial Aid officers, in attempts to ration limited VR dollars. In many states, cooperative agreements between state VR agencies and state associations of Student Financial Aid officers have formalized and improved communications between Student Financial Aid officers and VR counselors and have increased client access to the Student Financial Aid dollars.

History of Cooperative Agreements

In 1976, RSA issued basic guidelines and statements of requirements for cooperating with public programs and voluntary organizations. According to those guidelines:

"The purpose of cooperative arrangements is to insure the provision of adequate rehabilitation services by maximum utilization of appropriate programs. The concept recognizes that while rehabilitation agencies must deal with many programs, individual services can best be provided when planned policies and procedures govern interagency cooperation (RSM 530, February, 1976)."

These guidelines simply reiterate a point of view long understood and practiced by VR agencies. Over the years, VR agencies have entered into partnerships with various public agencies and voluntary organizations to accomplish two general purposes: to focus combined expertise and resources on a specific type of disability (for example, mental illness, multiple sclerosis, heart disease, older persons with disabilities, and disabled persons in special education); and to publicize the resources offered by the partner agencies so that eligible consumers can more easily and effectively access those resources (for example, the resources of the Veterans Administration, State Employment Services, and

Student Financial Aid offices).

The partnerships have generated research, demonstrate projects, training, new service strategies, and, in general, a re-focusing of resources and attention. For each disability group highlighted by the partnership, we have observed increased willingness and success in tackling tough problems presented by persons with severe and/or poorly understood disabilities or special needs.

Consumerism

Consumerism in rehabilitation is expressed in Section 504 of The Rehabilitation Act; in the independent living movement and programs, such as centers for independent living; in the planning instruments known as Individualized Written Rehabilitation Programs, Individualized Education Programs and Individualized Habilitation Programs; and in Client Assistance Programs. Consumerism is the achievement of a true partnership between consumers and the public and private programs which serve them. It is a potent partnership which has streamlined agency procedures, dismantled architectural barriers, opened up job opportunities for persons with disabilities, focused services on severely disabled persons, diminished inequities in public policies and procedures, and expanded the influence and impact of public rehabilitation programs through the voices, accomplishments, advocacy, and energy of the people they serve. If one measure of a successful program is increased leverage, then consumerism has brought about a successful partnership, increasing the means of accomplishing the purposes of VR — enabling persons with disabilities to work.

Recent Federal Initiatives

Transition from school to work is basically a partnership among state VR agencies, school districts, community-based rehabilitation facilities, develop-

“Partnerships” is a theme central to the workings of the state-federal VR program.

mental disability programs, and businesses to normalize the vocational development of high school-age persons with disabilities, particularly, those in special education. In 1983, 7,817 referrals to the VR agencies came from high schools. However, large numbers of those graduating students were unprepared to meet the demands of work, and prolonged pre-vocational remediation was called for. Success often suffered as a consequence. The “transition partnership” applies the vocational expertise of VR staff earlier in the student’s school years, thus preparing vocational ready students who can more easily adjust to the world of work.

Supported work may be regarded as a partnership among sheltered workshops, developmental disability programs, VR agencies, rehabilitation facilities, and business and industry in an attempt to offer severely disabled people opportunities to work in non-sheltered settings. In 1983, 14,172 people became employed in sheltered workshops following VR services. For some persons, sheltered employment was suitable and appropriate; for others, sheltered employment was not suitable, but nonsheltered alternatives were not available. The supported work concept calls upon business and industry to hire severely disabled persons and allow support services to be provided on-site, in partnership with the employer and employee, so that the severely disabled employee can be sustained on the job. The supported work concept offers sheltered employees another option, but it also recognizes that for some persons sheltered employment is the suitable and desired alternative.

Projects With Industry is a term for the partnership between public/private service programs and the business com-

munity. It encompasses several principles and procedures: teaching proper work behaviors in a real work setting; employers persuading fellow employers to hire persons with disabilities; employers structuring public/private sector skill training programs to respond to employer expectations; and employers teaching persons with disabilities to write effective resumes and to present themselves effectively during job interviews. Partnerships with business and industry operate in many ways, spring from varied funding sources (for example, RSA discretionary grants) and have varied sponsors. However, they all share the belief that it is in the self-interest of business to participate in recruiting, training and placing persons with disabilities to assure the availability of competent and reliable workers.

Conclusion

Unemployment is a national problem which concerns and affects all Americans; it is not exclusively a disability issue. It is a staggering fact, nevertheless, that no other demographic group of Americans under age 65 has such a small proportion working. The public commitment to the vocational rehabilitation of Americans with disabilities began as a revolutionary experiment 67 years ago. While the nature and scope of that public commitment has expanded, the magnitude of the task at hand has not lessened; and the concerted efforts of us all are necessary to tackle that task. The state-federal agencies and all the public and private agencies and organizations which comprise the “rehabilitative community” have a distinguished history of working in partnership. We are challenged to continue that tradition, never losing sight of the goal of assuring equal opportunities and

promoting independence for persons with disabilities.

Dr. Burleigh is State Representative for Rehabilitation Services in the Kansas City Regional Office.

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Marketing

(Continued from page 15.)

years have passed? According to the director, "The mission of the center has changed. While previously the center was a training facility, now the mission is to provide business opportunities for the handicapped. The profits from these business opportunities will be used to provide more programs to train and employ clients." The Annual Contingency Tactic (ACT) is a 3-year strategic plan which the center has

developed to target these opportunities. The center now has a clear mission statement and goals for the next 5 years.

There is a crucial difference in the success of this marketing application and one that fails. Failures often occur when the main intent of the organization is sacrificed in order to try some marketing tactics.

Some examples of nonprofit centers that have been subsidized by profit making programs are:

- The Boston Symphony Orchestra, through the development of the "Boston Pops." Popular music, which is a money making venture, helps subsidize their essential mission, which is classical music.
- Massachusetts General Hospital subsidizes research and teaching functions through agreements with manufacturers. A \$50 million grant was provided, and in return, the manufacturer receives commercial rights to any drugs developed in the research facility.
- National Public Radio subsidizes its programming by leasing use of its satellite systems to corporations and foundations.
- The Smithsonian Institution is subsidized greatly by \$700 million in sales from its gift shops and \$9 million from its food service operations.
- George Washington University uses surpluses generated from real estate activities to help subsidize the university's primary mission to educate.
- The Foster Parents Plan, a nonprofit agency which assists children and their families overseas, has also increased their growth to 20-25 percent a year through developing and executing a long-term marketing plan.

In this case study, as well as in the other nonprofit organizations, marketing is seen as an overlay that happily coexists with and supports the social service mission. Properly used, marketing helps to sharpen the social service direction so that everybody wins.

Doris Van Doren and Louise Smith have consulted with a wide range of nonprofit organizations on marketing concerns. Their particular expertise lies in helping an organization make the transition from a dependent, "hand-out" orientation to an independent, "benefit provider" one. Dr. Van Doren is Assistant Professor of Marketing at Loyola College in Maryland. Dr. Smith is Assistant Professor of Business Administration at Towson State University. This article was developed with the assistance of Paula Preziotti, graduate student at Loyola College in Maryland.

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Discusses selection factors used to determine which recipients of Federal Employees' Compensation Act benefits are more likely to return to work and therefore should receive vocational rehabilitation. Also reports on which rehabilitation interventions are more likely to produce return to work.

ART RESOURCE DIRECTORY FOR THE BLIND AND VISUALLY IMPAIRED. American Foundation for the Blind, publisher. Available from the Museum of American Folk Art, 444 Park Avenue South, New York, New York 10016. Telephone: (212) 481-3080.

DISABILITY MANAGEMENT SEMINARS: REDUCING WORKERS' COMPENSATION COSTS: PROJECT REPORT, A.R. Stanton and K. E. Ogren. Menninger Rehabilitation Research and Training Center, Topeka, Kansas, 1986. 41 pages. Available from the National Rehabilitation Information Center (NARIC), 4407 Eighth Street, N.E., Washington, D.C. 20017. Toll free telephone: 800-34-NARIC (voice/TDD). There is a charge for photocopying documents.

Presents disability management as a means of reducing workers' compensation costs and promoting return to work. Includes development of curriculum for a series of seminars on disability management.

VOCATIONAL REHABILITATION AND YOU. Pacer Center, Inc., 4826 Chicago Avenue South, Minneapolis, Minnesota 55417-1055. Video cassette, 17 minutes, available on loan for \$10 for one month or purchased for \$35.

This video cassette on the Minnesota Division of Rehabilitation Services (DRS) explains what the agency offers and its eligibility criteria. It portrays a counselor's involvement in the lives of two young adults, one who is mentally retarded and physically handicapped and another who has epilepsy and a learning disability. It also highlights how vocational rehabilitation counselors can participate in IEP planning for older high school students with disabilities at the request of the school, parent or DRS client.

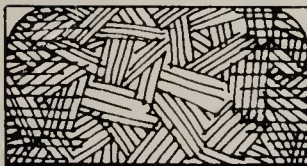
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LOW VISION VISUAL PERFORMANCE AS A FUNCTION OF ENVIRONMENTAL AND TASK CHARACTERISTICS: TECHNICAL REPORT. S. Marmion. Mississippi State University Rehabilitation Research and Training Center, 1986. 57 pages. Available from the National Rehabilitation Information Center (NARIC), 4407 Eighth Street, N.E., Washington, D.C. 20017. Toll free telephone: 800-34-NARIC (voice/TDD). There is a charge for photocopying documents.

Document provides description and results of investigation of the effects of several stimulus characteristics on the performance of visually impaired subjects to determine the relative strengths of various stimulus effects such as illumination, contrast, stimulus size, and target speed and how these characteristics interact.





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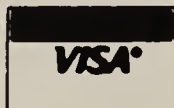
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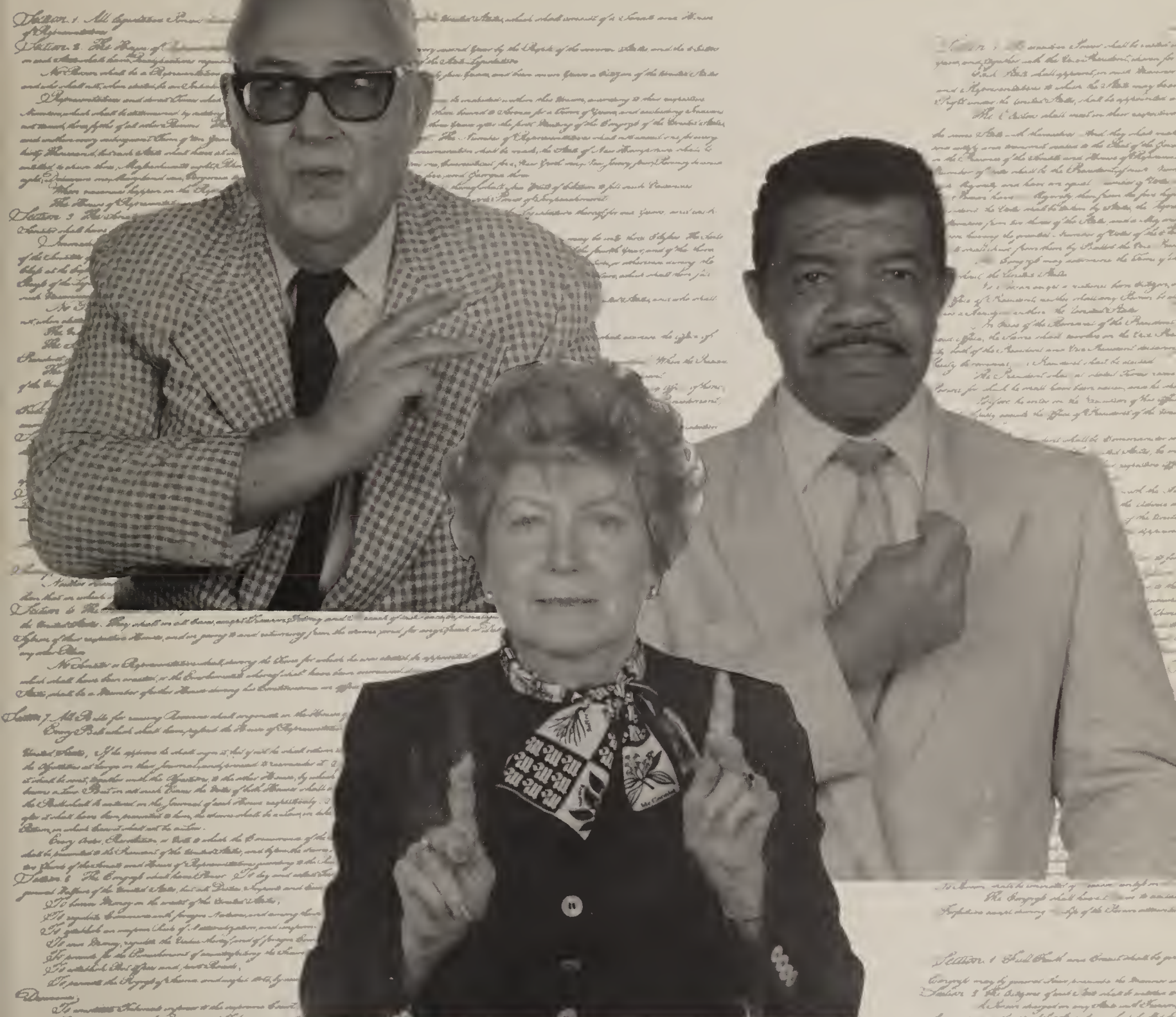
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and our Posterity, do hereby establish this Constitution for the United States of America.



AMERICAN REHABILITATION

July-Aug-Sept 1987



COVER PHOTO: Three widely recognized leaders in the field of deafness sign "We the people." 1.Boyce Williams ("We"). As chief of RSA's Deafness and Communicative Disorders Branch, Mr. Williams began the 42-year-old national vocational rehabilitation program for the deaf and those with other communication disorders. He retired in 1983. 2.Ernest E. Hairston ("the"). Former president of D.C. Area Black Deaf Advocates, Mr. Hairston is a Ph.D. candidate at Gallaudet University and a graduate of the National Leadership Training Program in the Area of Deafness, California State University at Northridge (See related story on page 2). He is currently an education program specialist in the Office of Special Education Programs, U.S. Department of Education. 3.Edna Adler ("people"). Recognized internationally for her work in deafness, Mrs. Adler is assistant chief of RSA's Deafness and Communicative Disorders Branch, where she has worked since 1966. *(Photography by Ed McCrossan)*

AMERICAN REHABILITATION

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The National Leadership Training Program in the Area of Deafness

Its Development and Impact

Barbara Boyd, Ph.D.

The year is 1960. The state of the art in the education and rehabilitation of deaf people is much the same as it was 100 years ago. Deaf people leave high school—some graduate, though with only a fourth of fifth grade education. Some do better and go on to the one postsecondary educational program in the country designed to accommodate them and their unique needs, especially in the area of communication. They may graduate from college, but if they want to become teachers, the training programs are not geared to accepting deaf students. Professional interpreters are unheard of. The number of deaf people in administrative level positions can be counted on the fingers of one hand. A large number go into the printing field. Only about 20 deaf people in the United States hold doctoral degrees. For the last century, and up to the present, we have a bleak picture of underachievement and underemployment.

Yet, change is in the air. It starts with the Commissioner of the Federal Office of Vocational Rehabilitation (OVR), Mary Switzer. She meets with Boyce Williams, then Consultant to the Deaf and Hard of Hearing, OVR, and with Mrs. Spencer Tracy, the parent of a deaf son. Together, they map out the current state of affairs; they determine the needs of deaf people in conjunction

with distinguished educators, such as Edgar Lowell of the John Tracy Clinic, and they design a program that will educate present day deaf and hearing leaders and prepare future leaders in the area of deafness for a changing of the guard. Henceforth, rehabilitation workers will be trained in the area of deafness, in the specialty in which they work. Administrative positions in the school programs for deaf children will be opened to deaf people themselves. Professional interpreting will advance and bring a new dimension to the concept of mainstreaming, in which deaf students study alongside their hearing peers and achieve commensurately in academic areas. Professional interpreting will also enter the courtrooms, helping to make it possible for deaf people to receive just and fair trials. In addition, deaf people will be allowed to serve on juries. Deafness will no longer be viewed as an insurmountable handicap; rather, deaf people will be identified as achievers and will be *expected* to succeed. OVR is set to be the instigator for unparalleled change and development in the rehabilitation and education of deaf people.

And so it begins. Dr. Wayne McIntire, a professor in the Department of Administration and Supervision at San Fernando Valley State College in Northridge, California, initiates formal

planning of an innovative leadership training program. Cooperative efforts include university personnel as well as rehabilitation, education and deaf community leaders at the local, state and national levels. The proposed program is appropriately called LTP—the Leadership Training Program in the Area of Deafness.

The National Leadership Training Program: Beginnings

Such were the beginnings of the National Leadership Training Program (NLTP). With a grant secured from OVR in 1960 by Dr. McIntire, and with the development and approval of interdisciplinary curricula in leadership, the first NLTP training class was established on the campus of the San Fernando Valley State College in 1962 with 10 participants. The 1963 class offered innovative adult education classes to deaf community members in conjunction with the First Baptist Church of Van Nuys. The program, although designed to prepare administrators to serve deaf people, was limited to hearing participants. In 1964, the idea of inviting deaf people themselves to participate in the program materialized.

The first two NLTP deaf students arrived in 1964. They successfully completed the program and received their master's degrees. With the presence of

deaf students in the classroom arose the need for support services. The initial funding for these support services was donated by local service clubs. This was sufficient as long as the number of deaf students attending classes remained small. But they didn't. The concept of the National Leadership Training Program—which made it possible for deaf students to study alongside their hearing peers—gave rise to an innovative idea: that of mainstreaming undergraduate deaf students.

The Beginning of Services to Graduate and Undergraduate Deaf Students

In 1964, with the two NLTP students setting a precedent for mainstreamed postsecondary education, another deaf person interested in acquiring a master's degree in counseling entered the university. The first deaf undergraduates also arrived in September 1964, having heard that there were opportunities for deaf students to study in a university with hearing students. By 1966, 12 deaf students (graduates and undergraduates) were enrolled in the university; this number more than tripled 2 years later when 33 entered. In 1969, however, the number had grown to 55; with the increase was the need for a more permanent funding base. This was realized that same year when the California State Department of Rehabilitation sponsored a "block funding grant" that led to enhanced interpreting, notetaking and counseling services for the deaf students enrolled in the university. During this period, the name of the college was changed to California State University, Northridge (CSUN).

The Influence of the National Leadership Training Program on CSUN Programs for Deaf Students

The successful performance of the first two deaf students in NLTP led to the recognition that deaf people could succeed in a mainstreamed setting with

appropriate support services. Spurred by the success of NLTP, CSUN's Department of Special Education and Rehabilitation secured in 1969 a grant from the Bureau of Education for the Handicapped, U.S. Office of Education, Department of Health, Education, and Welfare, to initiate a Teacher Preparation Program. This program was the first in the nation to prepare teachers of deaf students at the secondary school level.

NLTP's primary impact, however, has been on the development of the National Center on Deafness (NCOD). The presence of a nationally recognized training program on its campus put California State University, Northridge (CSUN) in the forefront of educational innovation. The university was seen an emerging alternative in the postsecondary education field. Deaf students

straight out of high school and deaf graduate students desiring graduate level education in fields other than education and rehabilitation could opt for CSUN. NCOD was making the university accessible to a wide spectrum of people who were deaf and hard of hearing. Providing expertise and the impetus for its development was NLTP—a force that has inexplicably intertwined NCOD and NLTP. A discussion of the NLTP impact on CSUN would be incomplete without an overview of its influence on NCOD and the growth of its programs.

Under the capable direction of Dr. Ray L. Jones, NCOD continued to thrive through the decade of the 70's. In 1970, 81 deaf students were enrolled in CSUN and the first of many special programs began when the drama department offered a course emphasizing the artistic aspects of sign language. That same year "Project DAWN" (Deaf Adults with Needs) began, funded

by a grant from the Bureau of Adult Vocational and Library Programs. Project DAWN was instrumental in reaching out to the "grassroots" deaf population and helping to establish basic education programs across the country. The Adult Education Act provided funds for the expansion of Project DAWN to other disabled groups. "Project TRIPOD" (Toward Rehabilitation Involvement by Parents of the Deaf) was also funded in 1971; it resulted in the first national workshop and several subsequent regional workshops that brought together parents of deaf persons, deaf adults and professionals serving deaf people.

The first decade of programs and projects in the area of deafness culminated in 1971 with the California Legislature, through Assembly Bill 1923, adding Section 23609 to the

Professional interpreters were unheard of.

Education Code. This called for the trustees of the California State University and Colleges system to designate one institution as a professional center for training deaf persons and to take all action necessary to facilitate the receipt by such state institution of state and federal funds. Following this legislation, the trustee's Committee on Educational Policy designated CSUN as a professional center for training deaf persons, stating:

"Based on its many years of institutional, State, and Federal support for programs involving deaf persons, California State University, Northridge is recommended for designation as a professional center for training deaf persons pursuant to this law.

"Such designation will bring official recognition to the innovative, nationally recognized program for deaf persons. It will facilitate the University's efforts to gain funding from State and Federal

The number of deaf people in administrative level positions could be counted on the fingers of one hand.

sources. This recognition will designate the University as the primary California institution of higher education to which the Department of Rehabilitation can refer its deaf clients. Faculty and staff recruitment efforts will be enhanced. Deaf students graduating from secondary and junior college programs in California will be provided an opportunity to continue their education in their home state" (Murphy, 1979).

The Second Decade: Continued Growth and Changes in the Funding Picture

Following the California State University system's designation of the university as a professional center for training deaf persons, the CSUN administration approved the establishment of a Center on Deafness to coordinate the increasing number of programs and to provide enhanced services to deaf students attending the university. In 1972, the trustees gave increased status to the university's ability to serve deaf students and to train those seeking professional careers in the area of deafness when they authorized a line item augmentation budget to partially support the work of the Center on Deafness.

Meanwhile the number of graduate and undergraduate deaf students at the university was constantly increasing: enrollment topped 100 for the first time in 1972, then continued its upward trend with 116 in 1973, 122 in 1974, and 152 in 1975. Surely this was to be the decade of growth. Not only were deaf students arriving on the campus in growing numbers but also the university was welcoming deaf faculty. The Department of Special Education and Rehabilitation appointed a deaf professor as head of its Teacher Prepara-

tion Program in 1972. The year 1974 saw the inception of the "Visiting Deaf Professor" lectureship with deaf professors from other colleges and universities spending a semester teaching, studying and writing at CSUN.

During this time the National Leadership Training Program was also growing. With funding support from the Southwestern Region Deaf-Blind Center and the Department of Health, Education, and Welfare's Bureau of Education of the Handicapped, the first National Leadership Training Program for Professional Workers in the Area of the Deaf-Blind began in 1974. Two deaf persons were included in the class.

Only about 20 deaf people in the United States held doctoral degrees.

The year 1974 saw other innovative programs: a summer workshop on the "Law and the Handicapped" was offered; a second workshop on the "Needs of Minority Deaf Persons" was co-sponsored by the Center on Deafness and a regional rehabilitation agency. In addition, CSUN joined a six-member "National Interpreter Training Consortium" (NITC) geared toward meeting the need for trained interpreters—not only in education and rehabilitation but in every area of human service—across the country.

The funding picture changed somewhat in 1975 when CSUN, with 152 deaf students enrolled, became one of three legislatively stipulated institutions of higher learning to receive funding for Support Services to Deaf Students under Section 625 of the Elementary and Secondary Education Act. With increased funding, CSUN

was able to attract even more deaf students, and 171 enrolled in 1976. The same year saw an executive with International Business Machines Corporation (IBM) arrive on campus to develop a program, "New Careers in Business for the Deaf." The time-honored profession of teaching would, henceforth, be supplemented by employment opportunities in other fields.

In the middle of this second decade, after only 13 years of providing interpreting, counseling, notetaking, tutoring and instructional support services, CSUN awarded its 200th master's degree to a deaf person. No institution had ever before offered a comprehensive course of study at the master's level to deaf students. Topping this achievement was the graduation of a deaf-blind student from the NLTP Deaf-Blind program with a perfect 4.0 grade point average in his master's coursework.

The following year saw CSUN and a number of other post-secondary programs establish the Council of Directors (COD) to cooperatively study and promote the provision of college level coursework to deaf students. This resulted in CSUN's being recognized nationally. Dr. James Cleary, President of CSUN, then proceeded in 1978 to approve a name change for the office coordinating services to deaf students, and the National Center on Deafness was officially formed.

Two other milestones occurred in 1978. One was the establishment of the Telecommunication Center honoring the memory of Alexander Graham Bell. The other was approval of a National Center on Deafness building site on the CSUN campus by the university's Campus Planning Board. The program which had played significant roles in the creation, development and initiation of

innovative pioneering efforts in the field of deafness would finally have a permanent home. The trustees of the California State University and Colleges system dedicated a building site at the entrance to the CSUN campus as this future home.

NLTP: a Recapitulation

Since the first students arrived on the CSUN campus in 1962, NLTP has graduated 338 students, 112 of whom are deaf. Perhaps the most effective way to measure the success of NLTP is to look at the post-graduation achievement, placement and professional advancement of its graduates. A 1985 survey showed that:

- At least 34 NLTP graduates had successfully completed doctorates after leaving CSUN.

- Twenty NLTP graduates headed residential schools for deaf students as superintendents or headmasters, including three deaf graduates.

- Eight NLTP graduates were functioning as assistant superintendents.

- More than 50 graduates were principals in both residential and public school programs serving deaf students.

- Approximately 30 had obtained other supervisory positions in residential schools: dean of students, coordinator of student life and directors of specialized services.

- More than 30 were employed in postsecondary educational programs as professors, administrators, service deliverers, counselors, and psychologists.

- More than 10 were in rehabilitation, with four functioning as supervisors.

- The remainder were in a variety of job situations—teachers of deaf students, free lance consultants, interpreters, and self-employed in other areas. The range of job titles is as varied as the kind of people graduating from the program. A sampling of job titles

includes such influential positions as Director of Special Education for the City of Olympia, Washington; Deputy Director, Bureau of Hearing Impaired, Division of Communicative Services in Wisconsin; Vocational Evaluator, Virginia Department of Rehabilitation

summarized in an article of a few pages. A great number of fields have been touched in one way or another by the impact of NLTP: education, rehabilitation, social services, religious programs, interpreting and business, to mention perhaps the most prominent. A glance

The Federal Office of Vocational Rehabilitation was set to be the instigator of unparalleled change and development in the rehabilitation and education of deaf people.

Services; and State Specialist, Utah State Office of Education, Division of Rehabilitation.

As stated in the first part of this paper, the National Leadership Training Program has been of significant influence on the development of the National Center on Deafness at CSUN, making it possible for undergraduate students to attend a mainstreamed university and graduate students to choose fields other than education and rehabilitation. To look at the placement of alumni from the graduate and undergraduate programs is to find deaf people working in business, in public health agencies, in commercial sales

at the achievements of NLTP graduates, however, shows clearly that the most significant impact has been in education. Perhaps the time is ripe for a renewed emphasis on the rehabilitation component. Training programs for preparing rehabilitation counselors for deaf people exist throughout the country. None, however, are geared toward the preparation of administrative level personnel. If the field of deafness is to be represented fairly, adequately and equally in the rehabilitation process, it becomes imperative that a quality training program for upper level personnel be reinstated. For two successive years (1985 and 1986) NLTP grant applica-

The first NLTP training class was established on the campus of the San Fernando Valley State College in 1962 with 10 participants.

positions, in theatre and the performing arts—to mention only a few. The impact of NLTP has—in this sense—extended far beyond the dreams of its founders and the individuals instrumental in its development.

The Future

The impact of the National Leadership Training Program on deaf people cannot be minimized or even adequately

tions failed to gain approval by peer review panels. Support from the Rehabilitation Services Administration (RSA) was once solid; the need for a redefinition of priorities and reexamination of management resources compels us to examine once again the active participation of RSA in NLTP.

NLTP is an educational model which meets the needs of administrators
(Continued on page 29.)

The Deaf Subculture in America

A problem in power politics

James H. Hanson

The adult deaf population has had a long history of gathering together in community for common purpose. The character of this deaf community might be referred to as a subculture. Unfortunately, the term subculture has been viewed as having a negative connotation which has fostered unwarranted anxiety among families of deaf children and professionals who work with deaf persons. The truism that it is a hearing world in which we must learn to live has served as an artificial and somewhat seductive rationale for misguided parents and professionals to challenge the validity of a deaf community. The reality is that the subculture exists and its membership has a proud group identity. However, the character of this deaf community is undergoing significant change, with implications for the future of deaf people.

For purposes of this article, the deaf subculture is defined as those groups of deaf individuals who bond together around their identity as deaf persons. Generally, they share a common school experience, having attended a residential school. They are bonded by mutual acceptance of the American Sign Language as "their" language of choice. They gather for social purposes around the local clubs which usually meet on a regular basis. In attendance at such club meetings will be found deaf

people from widely divergent backgrounds. Some have professional degrees, some are illiterate. Some have white collar jobs, some blue collar and still others are unemployed and drawing social security benefits. The varied sociological mix of the group is dramatic. The glue that holds this divergent group together is their deaf identity and a style of communication—sign language.

The numbers of this above described subcultural group are relatively small as weighed against the statistical data defining the numbers of "hearing impaired" in our society. While the aged lady in the nursing home has become as deaf as any member of a community "Silent Club", the two deaf persons experience little common identity. Experientially, they are from different cultures. One is a member of a hearing culture, albeit a deafened member. The other is a member of a deaf culture living in a hearing environment. Any common bond they may share as a result of both having a profound hearing loss is largely forced and uncomfortable. While technically inaccurate, the two groups are often distinguished by labeling one "hard of hearing" and the other "deaf."

Historically, the "deaf" have been better organized. They have more readily accepted their identity as a deaf

person with unique communication needs, and thus find it easier to band together for common purpose. They have their own churches, their own insurance company, their own athletic leagues, and their own state and national organizations. The organization which best represents this deaf subculture on the national level is the National Association of the Deaf (NAD). On the local level, it is the State Association of the Deaf.

State Associations of the Deaf are basically weekend organizations. Members of their executive boards often face the task of traveling long distances at personal expense in order to have a quorum. There is seldom opportunity for an evening meeting during the week. Much of their business must be conducted by mail and occasional TDD calls, although the latter can quickly be prohibitive in cost. Conscientious deaf leadership, seeking to accurately represent the views of their constituency, find it difficult to gather a forum for discussion of relevant issues. Yet, without a consensus response from the group they represent, deaf leaders are sometimes fearful of exerting too much authority in their advocacy efforts. The result is a blandness of purpose and resolve which seldom gets translated into action.

The State Association for the Deaf visibility becomes diffused and swallowed up in the local clubs where deaf citizens gather for social conversation with friends. Advocacy activity is viewed as the responsibility of the State Association (Translation: The Executive Board) and the NAD (Translation: Some far away group of faceless power people in Washington, D.C.). A mentality develops which has as its premise that passive, noninvolvement is the only option open to deaf people. Others will chart their course. It is a passive dependency which runs deep to the core of the deaf subculture and which is a reflection of years of benevolent paternalism that has characterized the deaf experience in a hearing society.

Visit any meeting of deaf people and you will find agreement that life for deaf people is not what it should be. More interpreters are needed. More help is needed in finding jobs. Discrimination should be eliminated. Parents need to learn sign language. The list of concerns goes on. Criticism of professionals serving the deaf population is common. Vocational rehabilitation does nothing for the deaf. Interpreters are greedy, always demanding money for their services. Counselors don't sign as well as they should. Mutual frustrations are exchanged at the club and there tends to be general agreement that deaf people are poorly treated, readily misunderstood and largely ignored. A chronic sense of defeat and persecution prevails, with a strong undercurrent of anger flowing throughout. The one right everyone can maintain is the right to complain—and, in truth, there is usually much about which to complain.

In the context of this somewhat gloomy sociological scenario, the political impact of the deaf citizenry is less than certain. There is need to establish their priorities and present a united front. With serious competition for limited dollars, the rewards will go

to the most persuasive and the best organized. Critical to that persuasion is the availability of sound information and convincing examples of defined need. Contrary to an often held assumption, complex problems facing deaf persons are not readily understood by a hearing society. Ignorance is the predecessor of indifference. Those who understand the problem are forced to be the educators of those who do not

greater goal of integrated acceptance into the larger community. Regardless of what personal bias one may have about this socio-educational philosophy, the reality remains that it has had and continues to have a revolutionary impact on the traditional deaf subculture. It presents significant challenges to the future of deaf organizations. The historic bonding together which began in their residential school experiences

The reality is that the subculture exists and its membership has a proud group identity.

know. Statistical data to support identified needs is always useful. Considerable time and preparation is required to get one's message to the political decision makers. There are many special interests pursuing governmental favor. Most have paid lobbyists who spend long hours in their efforts to secure favorable treatment from their government. The deaf community, if it is to make any progress in this arena, will have to learn the rules of the game. They have their work cut out for them.

Adding to the complexity which faces the deaf community is the significant impact which the historic Education for all Handicapped Children Act of 1975 (PL 94-142) has had on the deaf subculture and the potential membership of state associations. The emphasis in deaf education has moved from the residential school into the mainstream of the public educational system. The goal has been to blend the deaf student into the general population, with the accent on similarities rather than differences. In that context, group identity as a deaf person is not particularly fostered.

In fact, the fundamental thrust of the mainstream concept is to de-emphasize the unique aspects of disability for the

and carried over into their adult years is not routinely characteristic of "mainstreamed" deaf people. If the state associations are to sustain and be representative of the deaf population, they will need to extend their appeal to the "mainstreamed" population. Age old emotional battles centering around acceptance of one's deafness and communication methodologies will probably arise. Genuine effort will be required to find the common ground upon which a stronger and more influential deaf advocacy program can be built.

Logically, the State Association for the Deaf is the group that should continue to represent the interests of deaf citizens. It has history. It has organizational structure. It exists here and now. What may be required is the courage and foresight to form coalitions, drawing together parents, professionals, and a broader constituency of hearing impaired people. Avenues must be pursued wherein alliances can be formed with other handicapped groups to achieve goals beneficial to all.

The gains which have been made for the deaf population throughout the United States have been hard won by committed deaf leadership in the context of a society that had a civil rights

(Continued on page 25.)

Personnel Shortages and Practitioner Competencies in Deafness Rehabilitation

Marita McKenna Danek, Ph.D.

The preparation of professional personnel to work with deaf people is a rapidly expanding specialization in the field of rehabilitation. The identification of personnel shortages in this field and the requisite competencies of such personnel are necessary to meet requirements mandated by the Rehabilitation Act amendments of 1984 and to insure the provision of adequate and accessible services to deaf clients in a variety of service settings. This study reports on experts' opinions regarding perceived personnel shortages and practitioner competencies and makes recommendations to alleviate identified problem areas.

The field of rehabilitation has expanded enormously since its formalized inception almost 70 years ago. Our uniquely American rehabilitation service delivery system has evolved from a narrowly-focused state-federal program to a broadly based network of services which includes a diversity of clients, services, goals, sponsors, and settings.

Over the past two decades, the field of deafness rehabilitation has come into its own as a legitimate rehabilitation enterprise. In the 10-year span from 1966 to 1976, the number of rehabilitation counselors in state agencies who were identified as deafness specialists (RCD's) increased from about 62 to approximately 335 (Danek, 1979), and appears to have leveled off at about 500 (Danek, 1984).

RCD's are the largest and most well established of all deafness rehabilitation personnel groups. However, there are also many vocational evaluators, work adjustment specialists, job development

and placement specialists, independent living specialists, mental health counselors, psychologists, and other rehabilitation personnel who specialize in working with deaf clients. These professionals provide services for deaf clients in a multiplicity of rehabilitation settings.

The impetus to improve and expand services to deaf rehabilitation clients is the result of many factors, including improved professional training and skills in working with deaf clients, recent major legislative mandates, an increase in community programs to meet the needs of a broader range of deaf people, greater consumer interest and involvement in rehabilitation programs, and even, perhaps, the greater overall visibility of deaf people (although this may be a result of the other factors).

The Federal Government recognized the crucial need for trained rehabilitation personnel with the passage of Public Law 83-565 in 1954. This legislation authorized grants to universities for

training master's level rehabilitation counselors. Separate training grant programs for related rehabilitation specializations and curricula were added over the years. Although most programs focus on training in established rehabilitation disciplines or allied health professions, there are three training grant programs that prepare professionals to work with specific disability groups. These programs focus on training professionals in the areas of deafness rehabilitation, rehabilitation of blind people, and the rehabilitation of persons with mental illness.

There are currently seven master's degree programs in deafness rehabilitation funded under two categories of long-term training grant programs: rehabilitation counseling and rehabilitation of the deaf.

Continuing education and in-service training in deafness for employed rehabilitation personnel are available at two universities. Several Regional Rehabilitation Continuing Education Programs (RRCEP's) also offer periodic training in deafness.

Legislative Mandates

In 1984, new Rehabilitation Act amendments (Public Law 98-221) contained two provisions which lead to the research reported in this article. The first provision mandated that the word

“qualified” be inserted into the Act before the word “personnel” each time that word appeared. The second provision, Section 304(c), requires that the Rehabilitation Services Administration (RSA) Commissioner prepare a yearly report about rehabilitation personnel shortages and that these shortages justify training funds by professional discipline and other program areas.

Statement of the Problem

The qualifications of deafness rehabilitation specialists has been the subject of much speculation of educators and experts in the field (McGowan & Vescovi 1971; Tully, 1970; Vernon, 1967; Quigley, 1966). The Model State Plan for Services to Deaf People (Schein, 1980) noted that deafness rehabilitation personnel in state agencies should have deafness-specific as well as generic rehabilitation skills. However, a 1984 survey of state rehabilitation agencies indicated that only 19 out of 46 had separate job descriptions for specialists in deafness rehabilitation (Danek, 1984). This finding is, no doubt, due primarily to the lack of consensus in the field regarding what competencies are critical to effective service delivery. Most states that did not have separate job descriptions were interested in obtaining technical assistance to develop such standards.

So the field of deafness rehabilitation has scant empirical data to identify the “qualified” personnel who should be providing services to deaf clients, according to the mandates of the 1984 Rehabilitation Act amendments.

As noted previously, the 1984 amendments also required documentation of rehabilitation personnel shortages to justify training funds by discipline and other program areas. There have been several recent studies of rehabilitation personnel shortages in state agencies nationwide (Gutowski, 1981); in rehabilita-

tion facilities (Menz, 1983); and on a single state basis (Ugland, 1981). Most recently, an RSA-commissioned report (Roberts, 1984) documented personnel shortages among several rehabilitation disciplines in all 10 federal regions.

Ironically, more of these reports, with the exception of Gutowski's (1981), addressed deafness rehabilitation personnel needs and shortages.

The lack of inclusion of deafness rehabilitation personnel in most major needs studies was a major oversight and one that could potentially impact negatively on the future of training programs in deafness rehabilitation, the

Shortages are obvious in all categories of personnel, although the greatest perceived need was for psychologists and mental health counselors.

supply of qualified personnel, and, ultimately, the provision of services to deaf clients.

The documentation of perceived personnel shortages and competencies in deafness rehabilitation are interrelated and interactive. The more stringent and restrictive the requisite competencies to enter a profession the greater the personnel shortages, particularly if potential rewards (intrinsic and extrinsic) do not compensate for the attainment of such competencies. For example, physicians have a rigorous and lengthy preparation prior to becoming licensed. However, the medical profession is attractive in terms of intrinsic satisfaction (value of function to society, autonomy and status) and sufficiently lucrative (an extrinsic reward) to compensate for the sacrifices incurred in preparing to enter the profession. There are shortages of physicians, nonetheless, in undesirable geographic locations, in the less remunerative public sector, and in less

autonomous specializations (*e.g.* rehabilitation medicine).

In assessing rehabilitation personnel shortages, therefore, it is obvious that demanding certain competencies as a prerequisite to entering the field has the effect of increasing shortages unless concomitant attempts are made to increase the attractiveness of the profession through the provision of such incentives as better salaries, better working conditions, higher professional status, *etc.* If no standards are maintained, any shortage can be rectified by increasing the attractiveness of a posi-

tion to the point where sufficient numbers of personnel are always available. This is obviously a short-term solution since shortages are alleviated at the potential cost of reducing the quality of services to clients. So there is a delicate balance between competencies, shortages and the attractiveness of a profession, and all must be considered simultaneously when assessing needs in the field.

This survey, therefore, addressed the following questions related to competencies and personnel shortages in the field of deafness rehabilitation:

- What are the current perceived personnel shortages for the following rehabilitation-related deafness specialists: RCD's, vocational evaluators, work adjustment specialists, independent living specialists, mental health counselors, psychologists, rehabilitation teachers, and rehabilitation aides?

- What professional competencies (ranked) are required to serve deaf

A considerable number of deaf adults are not receiving services, despite their need.

adults and what educational method is most appropriate to achieve each competency?

- What is the minimum starting salary and minimum educational requirement for each specialty area within deafness rehabilitation?

- What proportion of adult deaf people who are in need of services are currently being served? What is the reason that clients who are in need of services are not being served?

Methodology

There are various approaches to assessing personnel needs. One way is to survey clients relative to the accessibility of services and to extrapolate from this the potential for maximizing services with additional personnel. Another way is key informant surveys in which perceived shortages are based on the opinions of experts presumed to have special knowledge of the target population. A third way is to determine the number of clients receiving services and compare this to population statistics for that disability group to determine possible patterns of "underservice" caused by lack of personnel.

This study used the key informant method but combined questions about perceived personnel shortages with questions about the availability of services to clients. A questionnaire was constructed which used items very similar to the one used in the Roberts' (1984) sample so that comparisons could be made between generic and deafness personnel shortages. The questionnaire asked for basic demographic data about the respondents' agency and for his or her opinion regarding supply/demand estimates of rehabilitation personnel in their geographic area; the five most important competencies needed to serve

deaf people (ranked from a list of 16); the best educational method of obtaining these skills; the average starting salaries for various deafness rehabilitation personnel in their employment settings; the minimal educational level required for employment for these professionals; the proportion of adult deaf persons in their area who are in need of services but are not currently being served; and, finally, the reason why clients who are in need of services are not being served.

The six-page questionnaire was sent in the Spring of 1985 to the following rehabilitation employers: all state agency coordinators in deafness (SCD's); all directors of rehabilitation facilities for deaf clients listed in the April 1985

A concerted recruitment effort should be undertaken to attract competent and committed people into deafness rehabilitation disciplines.

American Annals of the Deaf; all directors of mental health programs listed in the 1981 *Directory of Mental Health Programs and Resources for Hearing Impaired Persons*; all directors of federally funded Independent Living Centers; and all coordinators of programs listed in the 1983 *College and Career Programs for Deaf Students*. All lists were cross-checked to prevent duplication.

After one followup to nonrespondents, 225 usable returns were received. Respondents came from the following service settings: state rehabilitation agencies (26 percent), rehabilitation facilities (24 percent), post-secondary programs (27 percent), mental health programs (14 percent), independent living centers

(4 percent), and community service agencies (2 percent). All RSA regions were represented with most respondents coming from Regions 4, 5 and 9 and the least from Regions 6, 8 and 10. Seventy percent of the respondents came from a community of 100,000 or more.

Results

Perceived supply/demand estimates for each category of deafness rehabilitation personnel are listed in Table 1. Shortages are obvious in all categories of personnel, although the greatest perceived need was for psychologists and mental health counselors.

There was a considerable need for psychologists according to 62 percent of respondents, whereas 56 percent perceived a considerable need for mental health counselors.

In combining the "considerable" and "slight" shortage categories, over 80 percent of all respondents said there was

a shortage of mental health counselors, psychologists or independent living specialists; over 75 percent said there was a shortage of vocational evaluators, job development and placement specialists and work adjustment specialists; over 70 percent said there was a shortage of rehabilitation teachers; and 68 percent said there was a shortage of RCD's.

Starting Salaries and Minimum Educational Requirements

Table 2 lists average minimum salaries (1985 dollar amounts) and minimum educational requirements. The highest starting salaries are earned by psychologists, RCD's and mental health counselors; the lowest salaries go

Table 1
Supply/Demand Estimates — Rehabilitation Personnel
(percentages)

Rehabilitation Role	Considerable Shortage	Slight Shortage	Balanced Supply/Demand	Slight Surplus	Considerable Surplus
Rehabilitation Counselor (RCD)	27	41	26	5	1
Vocational/Work Evaluator	42	35	22	—	1
Vocational/Work Adjustment Specialist	41	34	24	1	—
Job Development/Placement Specialist	43	33	21	3	1
Independent Living Specialist	41	39	18	2	—
Mental Health Counselor	56	27	13	3	1
Psychologist	62	20	15	2	1
Rehabilitation Teacher	37	37	25	1	—
Rehabilitation Aide	29	35	31	4	1

Table 2
Rehabilitation Personnel Average Salaries and Employment Standards

Rehabilitation Role	Salary	Minimum Educational Requirements			
		Associate	Bachelors	Masters	Doctorate
Rehabilitation Counselor (RCD)	\$17,743	—	47%	53%	—
Vocational Work Evaluator	\$15,800	3%	62%	35%	—
Work Adjustment Specialist	\$14,795	9%	65%	26%	—
Job Development/Placement Specialist	\$14,795	5%	64%	31%	—
Independent Living Specialist	\$15,055	18%	62%	20%	—
Mental Health Counselor	\$17,547	11%	11%	75%	3%
Psychologist	\$22,622	—	6%	45%	49%
Rehabilitation Teacher	\$15,857	11%	62%	27%	—
Rehabilitation Aide	\$11,798	72%	26%	3%	—

Table 3
Deafness Practitioner Skills (Ranked) and Minimum Educational Requirements

Skill (Ranked)	Education
1. To communicate with the deaf person using his/her natural language.	Certificate
2. To determine functional skills and limitations of the deaf person.	Master's Degree
3. To analyze, synthesize and utilize assessment data.	Master's Degree
4. To provide appropriate placement service — vocational, community and independent living.	Bachelor's Degree On the Job Training (tie)
5. To provide case management services to the deaf person.	Master's Degree Bachelor's Degree (tie)
6. To locate and use appropriate community resources for deaf people.	Bachelor's Degree
7. To apply knowledge of the educational, vocational, social, and psychological needs of deaf people.	Master's Degree
8. To maintain a facilitative professional relationship with the deaf person.	Master's Degree
9. To apply knowledge of the world of work and vocational information to the deaf person's needs.	Bachelor's Degree
10. To advocate for increased involvement of the deaf person in the rehabilitation process.	Seminar
11. To apply knowledge of independent living to the needs of deaf people.	Bachelor's Degree
12. To increase public awareness of the abilities and needs of deaf people.	Seminar
13. To apply new techniques and technologies in deafness rehabilitation.	Seminar
14. To work as a team member with other professionals in deafness.	On the Job
15. To understand legal and ethical issues as applied to deaf people.	Seminar
16. To document client needs, services rendered, outcomes, etc.	Bachelor's Degree

to rehabilitation aides, work adjustment specialists and independent living specialists. Masters degrees were required by a majority of employers for mental health counselors and RCD's; almost half (49 percent) required a doctorate for a psychologist. Rehabilitation roles that required a bachelor's degree by the majority of respondents include job development/placement specialists, independent living specialists, rehabilitation teachers, vocational evaluators, and work adjustment specialists.

Associate degrees were required for rehabilitation aides by the majority of respondents.

Practitioner Competencies

Table 3 tabulates the results of an item requesting respondents to rank skills needed to serve deaf people (out of a list of 16 provided). Respondents also noted the preferred educational method to achieve each category: a pre-employment degree program (associate, bachelors, or masters level); a post-employment certificate program; a seminar/workshop (1-3 days); or on-the-job-training. Communication competencies were ranked highest by respondents followed by competencies in functional skill/limitation determination, utilization of assessment data, placement, and case management.

The preferred educational method of achieving all of these competencies (except communication skills) was a degree program. A certificate program was preferred for the attainment of communication skills. Skills ranked lowest in importance include those which require less complex and more routine abilities: case documentation, working as a team member and the application of new technologies. These skills were also perceived, for the most part, as regarding post-employment, rather than pre-employment training.

A considerable number of deaf adults are not receiving services, *despite their*

need. The majority of respondents felt that less than half of all deaf people needing services were getting them.

Table 4	
Reasons for Lack of Services	
Lack of Funding	40%
Lack of Appropriate Community Resources	22%
Lack of Trained Personnel	31%

The reason for a lack of services, as noted in Table 4, is most frequently perceived as funding problems, followed by a lack of community resources and trained personnel.

Summary and Conclusion

Several conclusions may be drawn from the results obtained by this survey. First, respondents who are key personnel in major rehabilitation settings indicate that an overwhelming shortage exists in every category of deafness rehabilitation personnel, particularly those categories that are newly emerging specialty areas (e.g., mental health counselor, independent living specialist) or require higher levels of training (e.g., psychologist, mental health counselor, RCD). Although salary levels for these specialists are commensurate with or higher than comparable salaries for special education teachers (Akin, 1984), there still exists major shortages of personnel. In the absence of additional data the reasons for such shortages can only be speculated. It is possible that lack of knowledge about career or training opportunities in deafness rehabilitation is a factor or that salaries do not adequately compensate for the additional competencies required. This survey did not

obtain information on whether deafness rehabilitation personnel are paid a salary differential because of the added skills required to work with deaf clients. Such a salary differential might attract more professionals into the field and ultimately reduce shortages of qualified personnel.

As discussed previously, personnel shortages cannot be documented apart from an identification of what competencies such personnel should possess. This survey has yielded some preliminary evidence for specific standards for personnel preparation and hiring practices in the field. Corroborating documentation is found in a recently completed dissertation (Petty, 1987), which used a different sample, survey instrument and methodology, but found similar rankings of the most important perceived competencies for working with deaf people.

It appears obvious from the data obtained that to be qualified in deafness rehabilitation a professional must possess communication skills and other deafness-related competencies in addition to generic discipline-specific competencies. The most critical competencies, according to respondents to this survey, can only be obtained through a pre-service, rather than a post employment training program. The next step is to determine how such competencies may be measured so that adequacy of preparation may be assured.

Respondents to this survey also believe that deaf adults are not receiving the services they need, not only because of lack of personnel but also because of lack of funding for programs and appropriate community resources. These reasons would appear to be interrelated: without qualified personnel, programs and services cannot be developed that demonstrate success in working with deaf people and that can establish a strong financial base.

In summary, this study provides preliminary documentation for personnel needs and competencies in the field of deafness rehabilitation. Severe shortages of trained and qualified personnel in various rehabilitation roles serving deaf adults currently exist. These shortages remain a major obstacle to effective service delivery to deaf adults and several steps should be taken to rectify this situation. First, a concerted recruitment effort should be undertaken to attract competent and committed people into deafness rehabilitation disciplines. Second, such an effort must keep in mind that there are potential intrinsic and extrinsic factors which will attract individuals to the field, including financial support for pre- and post-service training, adequate salary levels, job status and satisfaction, career mobility, and other incentives. Third, employers must be made aware of exactly what competencies are necessary for effective rehabilitation work with deaf adults and be provided the assistance to develop and maintain standards for hiring personnel possessing these competencies.

Dr. Danek is professor and director, rehabilitation counselor education program (deafness emphasis) at Gallaudet University. She has worked as a state agency counselor, as a school counselor with deaf teenagers and has served as a consultant to numerous national and international programs in deafness. She is a 1985 Switzer scholar and a 1986 recipient of the Rehabilitation Educator of the Year award given by the National Council on Rehabilitation Education.

An abbreviated version of this paper was presented at the American Deafness and Rehabilitation Association National Conference; St. Paul, Minnesota, May 27, 1987. Funding for this project was provided, in part, by the Gallaudet Research Institute small grants program.

Appreciation is expressed to Susan King who assisted with the analysis of data and Roger Beach who read an earlier draft of this paper.

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Wesolek Named to Head Stout VR Institute

John Wesolek, Ph.D., has been appointed executive director of the Stout Vocational Rehabilitation Institute at the University of Wisconsin-Stout.

Dr. Wesolek was previously the director of the institute's clinical vocational rehabilitation programs. He received a master of science degree in vocational rehabilitation from Stout in 1968 and joined the university staff in 1969. He received a Ph.D. in rehabilitation counseling from the University of Northern Colorado in 1985.

Gallaudet Encyclopedia of Deaf People and Deafness

Edna Adler

A unique encyclopedia, *Gallaudet Encyclopedia of Deaf People and Deafness*, is making its appearance at community libraries, universities and other public and private institutions and agencies. Published in 1987 by the McGraw-Hill Book Company, the encyclopedia represents the first attempt ever to contain, under one cover, comprehensive information about deafness and deaf people. A project of Gallaudet University, a world-renowned center on deafness and a major educational program for deaf people, the encyclopedia presents the most recent authoritative information available on deafness and deaf people, as well as historical backgrounds. A 1,322-page, three-volume reference, the encyclopedia provides access to material on all aspects and issues that relate to the physical attribute of deafness, and to deaf people as an identifiable population. A supporting index contains more than 8,000 entries beginning with the American Athletic Association of the Deaf (AAAD) and ending with Zubiauree, Valentin de (deaf Spanish artist). Except for an initial planning and assessment grant from the National Endowment for the Humanities, the entire cost for preparing and publishing the encyclopedia was assumed by the McGraw-Hill Book Company.

The encyclopedia editor-in-chief,

John Van Cleve, Ph.D., is a Gallaudet professor of history and chairs the university history department. Ten associate editors, experts in the wide range of areas covered in the encyclopedia, worked with Dr. Van Cleve in designing and developing its format, in determining the topics to be included, assisting in the selection of contributors, and in the reviewing of manuscripts. A total of 273 entries arranged alphabetically in the encyclopedia were contributed by more than 360 specialists in the broad fields of communication, sociology, education, law, audiology, religion, psychology, history, and rehabilitation.

This review will look mainly at those parts of the encyclopedia that address concerns of special interest to rehabilitation personnel. Rehabilitation is given excellent coverage in the encyclopedia in a 56-page section authored by individuals well-known in the field of rehabilitation and in the special field of rehabilitation of deaf people. Entries include a history of the rehabilitation movement, a detailed description of the state-federal rehabilitation program, and rehabilitation legislation up to and including the Rehabilitation Act of 1973 and Amendments, the functions of state and local rehabilitation agencies, the

rehabilitation process as it pertains to deaf people, rehabilitation personnel who serve deaf clients, long- and short-term training in the field of deafness rehabilitation, Section 504 and its implications for services to deaf people, and a review of rehabilitation literature. The thoroughness of the information provided makes the section a veritable mini-course on rehabilitation and the rehabilitation of deaf people. There may be no comparable source of this type of information so immediately accessible to interested persons. Students, parents, educators, rehabilitation in-service training staff, medical and other service agency personnel, employers, researchers, and deaf people themselves will find the section on rehabilitation a readable, reliable and easy-to-use resource.

Additional information on the rehabilitation of deaf people is given in a biography of Boyce R. Williams, a long-time employee of the Rehabilitation Services Administration, and the principal developer of the state-federal vocational rehabilitation program for deaf, hard of hearing, speech impaired, and language disordered individuals. The biography traces the development and expansion of the program through the years 1945-1983, citing successive rehabilitation legislation, key individuals

(Continued on page 29.)

Information That Makes

Fred

Hindsight is 20/20. It is easy to look back and see clearly what we would do differently, if we could go back and do it over again. But hindsight is no substitute for foresight, and the key difference between the two is information.

When making decisions, having the most pertinent and current information can make the difference between a good decision and a bad one. In the disability field, the right information can frequently make the difference between dependence and independence for a person with a disability.

The National Rehabilitation Information Center (NARIC), is funded by the National Institute on Disability and Rehabilitation Research (NIDRR) to provide you with the right information on a wide range of disability-related topics. NARIC serves as a comprehensive resource center.

The Early Years

In June of 1975, the Rehabilitation Services Administration (RSA) launched a feasibility study to investigate the need for a central location to house RSA-generated research results. In 1977, The Catholic University of America received a 5-year grant from RSA to develop such a center. In 1979, after the creation of the National Institute of Handicapped Research (now, NIDRR), management of and funding for NARIC was transferred from RSA to the new Institute. From these modest beginnings has grown a comprehensive information center annually providing thousands of people information on

disability-related research, services and consumer products. In order to respond effectively to these requests, NARIC has developed a variety of resources, including two databases, a library and a publications component. However, what brings all of these resources together is NARIC's Information Team.

The Information Team

Given NARIC's numerous resources, compiling the right information to meet your specific needs is something of an art. NARIC's Information Team specializes in hearing what you are saying, translating it into the information you need and packaging a customized response. An example follows:

- "I received a call from a mother with a son with cerebral palsy. He was ready to start swimming lessons, but this was scary for his mother. While we were talking on the phone, I was able to search ABLEDATA and provide her with information on three products that could help her make her son's swimming lessons both enjoyable and safe." — Jan Galvin, Information Specialist.

In addition, the Information Team makes use of its numerous resources to prepare packages that are geared to your specific information needs:

- "I recently received a call from an educator who wanted to know about programs for individuals with multiple sensory impairments. Although there wasn't one specific place where this information existed, I searched REHABDATA and went through our files to locate key names and programs that

were appropriate. Fortunately, we also had a *Rehabilitation Research Review* on the subject. The complete package costs about \$15. She called me the next week — the materials had lead her to an answer, and they served to introduce her to two or three other key names." — Judith Shaw, Information Specialist.

Occasionally, NARIC does not have the answer, but can refer requestors to other, appropriate sources:

- "We do get unusual calls. A few weeks ago a man called up and wanted to know how many people had become disabled last year as a result of accidents involving electrical appliances. Well, we couldn't answer that one, but we were able to refer him to the National Injury Information Clearinghouse, the Bureau of Labor Statistics and the National Safety Council. These organizations should help him come close." — Weldon Bagwell, Information Specialist.

On a daily basis, NARIC's Information Team puts the resources of REHABDATA, ABLEDATA, our resource files, and publications to work for you.

REHABDATA: Convenient Access to Over 18,000 Documents

If you ever wanted to know about disability-related topics, such as the current research on independent living, computer applications in agency management or wheelchair seating and positioning, then you should know about REHABDATA.

REHABDATA is NARIC's computerized listing of rehabilitation

A Difference: NARIC

research and literature. This database includes over 18,000 items on a myriad of subject areas. For example, REHABDATA contains about 162 listings on caseload management, 399 listings on independent living, 284 listings on employment, and 182 listings on service integration.

The documents in REHABDATA can be categorized into the following broad groupings: 43 percent research reports funded by NIDRR or RSA; 35 percent journal articles; and 22 percent commercial and reference resources.

The entries in each REHABDATA listing will provide you with enough information to make an effective decision about whether you will benefit from reviewing the actual document. The bibliographic information appearing in each listing includes the title, author, institution, source, year of publication, number of pages, descriptors, (from *The REHABDATA Thesaurus*) and a brief abstract of the document. (See sample REHABDATA listing.)

ABLEDATA: Accurate Information on Over 14,000 Consumer Products

If you ever wondered about products that could make your home physically accessible, or about clothing that is comfortable and easy-to-wear for a person with arthritis, then you should know about ABLEDATA.

ABLEDATA is a computerized listing of commercially available products that can be used to facilitate independence for a person with a disability. ABLEDATA contains information on over 14,000 products from over

1,700 manufacturers.

The products listed in ABLEDATA range from the simple (e.g., elastic shoelaces) to the sophisticated (e.g., environmental control units) and encompass just about everything in between. Many of these products can be used in a variety of settings — home, work, school, or community. Because people with varying disabilities can often benefit from the use of the same device, most of the products in the database are organized in broad categories. A sampling of these categories includes: activities of daily living; seating, mobility, transportation; ambulation, orthotics, prosthetics; architectural elements; vocational; therapy aids; communication; and sensory aids.

An ABLEDATA product entry contains the information necessary to locate the product. It includes the product's generic and brand name, the manufacturer's address, the product's availability, and its cost. Listings also include a brief product description from the manufacturer's literature and any special information, such as user comments or formal evaluations, if they are available. (See sample ABLEDATA listing.)

Although the Information Team can provide an individualized response to your request, many people who are only interested in information from NARIC's databases prefer to search ABLEDATA or REHABDATA themselves. If you have a computer and modem (telecommunications hookup), you may choose to search NARIC's databases directly.

ABLEDATA and REHABDATA can be accessed through the online services of BRS Information Technologies. BRS offers a variety of subscription packages. Two of BRS' services are of particular help to users on a budget. BRKTHRU is available 24 hours a day, with reduced rates nights and weekends. AFTER DARK is available on weekends and after 6:00 p.m. weekdays at a reduced rate. Both BRKTHRU and AFTER DARK offer simplified, menu-driven access to BRS databases. For details on the necessary equipment, subscriptions, and searching methods, contact BRS at 1-800-345-4BRS.

To assist in searching the databases directly, NARIC publishes *The ABLEDATA Thesaurus* and *The REHABDATA Thesaurus*. Each lists the subject terms used in the database and is available for \$25. A fact sheet, "How You Can Search ABLEDATA and REHABDATA," is available free of charge from NARIC.

Beyond Databases

Because not every information request can be answered by a database search, NARIC also maintains a wide variety of other, complementary information resources. The NARIC library contains more than 15,000 of the documents listed in REHABDATA and houses NARIC's periodical collection of over 300 disability-related journals and newsletters. These materials can be reproduced (within copyright constraints) to provide you with copies of the original document.

(Continued on page 29.)

Voice Controlled Robot-Servant

a new aide for severely disabled people

Joe Donovan

Researchers in the field of physical rehabilitation have long sought an effective and economically feasible robot that could perform vocational, recreational and daily living tasks, including feeding and hygiene chores, for the physically disabled — in short, an automated, remote-controlled “manservant.”

To be helpful to the severely handicapped, such a device should be controllable by voice, and should have enough artificial intelligence to master the rudiments of movement, vision and simple motor skills.

As part of a joint effort sponsored by the Veterans Administration Rehabilitation Research and Development Center (VA RR&D) and Stanford University's Center for Design Research (CDR), a team of engineers, rehabilitation therapists and disabled patients have put together an experimental prototype for such a robotic aid. For the most part, they used existing equipment along with some specially-designed hardware.

Housed in a curiously low-tech environment — a series of converted stables on the Stanford campus — the Stanford project was initiated 6 years ago under the direction of Dr. Larry Leifer. By the end of 1986, it had received VA funding of over \$3 million, making it the most ambitious manservant robot project currently underway.

The Kurzweil Voicesystem (KVS) is a crucial part of it.

“Most of our patients have been left with only muscle control from the neck up,” said researcher Stefan Michalowski, Ph.D. of Stanford's Mechanical Engineering Department, who is technical director of the robotic aid project. “One of our principal challenges has been to devise a system for patients to command and control the robotic aid using very limited physical capabilities.”

Since speech and hearing, which are vital to communication, are often retained by those disabled from spinal cord injuries, it was expected from the beginning that a speech recognition device would be used as the primary means of command and control between patient and robot.

But it wasn't until early 1986, 4 years after the project's inception, that that hope became a reality when the team learned about the Kurzweil Voicesystem. Earlier attempts to use voice recognition technology had been unsuccessful, stymied by the vocabulary limitations of other voice recognition products.

“We chose the KVS not only because of its real-time performance capability and its high degree of dependability and accuracy, but also for its large vocabulary,” said Michalowski. “While at the outset we're only using a fraction of the KVS's 1,000-word capacity — about 50 words — much more of it will be pressed into service as we approach

one of our major goals, which is to program the Robotic Aid to understand natural language commands.”

How the Robotic Aid Works

The Advanced Robotic Aid system has several parts.

First, there's the robot itself. It consists of a PUMA 260 mechanical arm mounted on a 3½ foot tall aluminum cylinder about the size of a commercial vacuum cleaner. The robot travels on a unique set of three omnidirectional wheels, developed especially for it.

A miniature TV camera is mounted on the vehicle, giving the user visual information that aids him in manipulating the robot when it is operating out of sight, in a neighboring room, for instance.

The robot is also equipped with a variety of force and proximity sensors. Algorithms are being developed that will use data from these sensors to maneuver around and manipulate objects. An on-board LSI-11/73 computer controls the arm, the sensors and the base.

Then, there's the operator console, from which the disabled person commands and controls the robot via radio hookup. The console contains the stationary components of the Advanced Robotic Aid: an IBM/PC AT computer (soon to be upgraded to a MicroVAX) that coordinates the highest level functions of the entire system, and a video monitor that displays information from

the robot's TV camera and lets the user see exactly what is happening.

Finally, there's the core of the system's user interface, the Kurzweil Voicesystem speech recognition device, which is complemented by noncontacting, ultrasonic sensors that flank the user's head.

The Advanced Robotic Aid in Action

A monitor displays a graphic map of the room with the battery powered robot's location indicated over a digital radio link. The ultrasonic sensors pick up any movement of the operator's head, which he moves backwards and forwards and from side to side to move a cursor on the monitor's graphic map of the room and thereby plot out the path that the robot will travel. Whenever the cursor reaches a desired point on the map, the user tells the computer via the KVS to label the spot. He then verbally commands the robot to travel between each of the points that he's labeled on the screen.

Additional verbal instructions into the KVS fine tune the robot's movement. If, for example, the robot encounters an obstacle in its path that had not been taken into account during the pre-programming of the robot's movement, the user can issue a series of commands that will re-direct the robot from its outlined path.

Manipulating the robot's mechanical arm to perform a task, such as picking up a pair of eyeglasses, can also be accomplished by combining voice with a hand-operated "joy-stick." The amount of hand control that can be introduced varies with each patient's disability, which may be the result of a spinal cord accident, arthritis or other muscular or neurological disorders.

"Quadriplegics with minimal or no arm motion will be able to rely on voice alone," said Dr. Michalowski.

Voice commands pilot the arm towards, for example, a pair of

eyeglasses on a table. "Arm mode . . . trajectory one" directs the arm to the eyeglasses' general locale.

Another, longer and more complex series of directions bring the mechanical arm within an inch of the glasses. "Turning motion . . . left . . . linear motion . . . forward . . . hand motion . . . rotate hand . . . open . . . linear motion . . . forward . . . close hand . . . trajectory four." Photoelectric proximity sensors tell when the hand is within an inch of the object. Then, the hand, following the command series, automatically picks the eyeglasses up.

Michalowski predicts that a production prototype will be ready within 2 years.

Translating that entire complex procedure into a natural language command, such as "go to the table and pick up the eyeglasses," will be the next step. The KVS, with its programmable, 1,000-word vocabulary, will be used to translate these natural language requests into computer-intelligible commands.

From Lab to Market with the KVS

"We began working with the KVS in early 1986," said Dr. Michalowski. "I am happy to say that it has significantly enhanced the usefulness of the robot.

"In fact," he continued, "I feel that a breakthrough has been achieved so that the speech recognition component of the Advanced Robotic Aid no longer represents a bottleneck, but rather has assumed the role of a peripheral device whose performance can be taken for granted."

Michalowski then emphasized the KVS's crucial role in the project's success.

"A robot intended for human-service applications has very different design constraints than a robot intended for controlled, industrial settings," he said. "Unlike robots for industry, the Ad-

vanced Robotic Aid is used interactively with the operator. It performs certain functions autonomously, but it must be responsive at all times to intervention by the human user who constantly monitors the robot — which perhaps encounters obstacles to its goal — in the real, unstructured world of the home, clinic or ward.

"The KVS," he concluded, "is a key part of that instantaneous interaction."

Michalowski predicts that a production prototype for the Advanced Robotic Aid will be ready within 2 years. Then, the quadriplegic popula-

tion, which in the United States numbers in the hundreds of thousands, will have a 24-hour alternative to human assistants such as nurses.

"It's an alternative that is cost-effective and has many special benefits for its users," he said.

A manufactured Advanced Robotic Aid might cost about \$30,000, a figure that could drop in the years after its introduction, due to the economies of mass production and the continuously declining cost of computer hardware that makes up so much of the device.

Michalowski projects that the Advanced Robotic Aid would eventually pay for itself in reduced nursing costs. In addition to being cost-effective, the Advanced Robotic Aid will also prove psychologically beneficial.

"Use of the robotic aid will give back to the disabled individual a lot of the privacy lost during extensive periods of nursing and therapy," he said. "It will do much to restore the patient's privacy and autonomy; and that will improve his self-image."

Mr. Donovan is an East Coast medical and science writer.

Facts and Attitudes About Adult Services for People with Severe Disabilities

M. Angele Thomas, Ed.D.
and
William Halloran, Ph.D.

It would be difficult to deny the preponderance of special education services that have been directed in recent years to the needs of severely handicapped secondary and postsecondary aged youth. *The Eighth Annual Report to Congress on the Implementation of the Education of the Handicapped Act* (1986) notes that the number of students counted as multihandicapped has grown 41.5 percent since 1978-79. From that same school year until 1984-85, the number of 18- through 21-year-olds across all handicapping conditions to receive services increased 88.3 percent. One reason given for this rapid growth of a traditionally underserved population is that all 50 states and the District of Columbia have legislation mandating special education for some portion of that age group.

The report states that over the last decade expanded services for handicapped students have provided them with a better foundation for developing productive, independent lives; but adds that to move successfully into adult life, these students will need to have acquired the knowledge and skills necessary for employment and independent living. Students with more severe disabilities will also need to have developed relationships with a range of adult service providers, according to the report. The complexity and diversity of transitional

needs and the wide range of service providers can make the coordination and delivery of transitional services difficult (p. 23).

Is the difficulty cited above a product of fact or one of systematic attitude? The professional literature is attempting to ferret out the problem so people would better understand the best approach to a solution.

McDonnell, Wilcox and Boles (1986) document the factual side of the issue by contending that shortages in community vocational and residential service programs is the greatest barrier that citizens with severe and profound handicaps face. They concur that those community services programs which do exist are ineffectual in bringing about their intended result. According to Bliton and Schroeder (1986):

"The job of education is to prepare students for life. It has never been more evident that for students with significant handicaps, the educational system is failing to do that . . . The rate of unemployment for the substantially handicapped is exorbitantly high" (p. 23).

Those who have work by and large secure it through a friend or family connection, not through professional job placement services (Wehman et al., 1985).

It would appear to be a fact that the issue no longer revolves around the right

of persons with severe handicaps to participate in community-based environments. "The debate centers around the nature and availability of such community based services" (Houselog, 1985 p. 178).

"Public Law 94-142 has been both preparatory and enabling in nature. It has prepared handicapped children for their rightful roles in society and has initiated the preparation of non-handicapped persons to receive these children into their world. It has enabled handicapped youth to acquire the academic and self-help skills, knowledge, and behaviors they need to participate in today's world of work and play. To date, however, 94-142 has not fulfilled its complete promise. While it has led handicapped youth and young adults to the edge of day-to-day American life, it has not made the bridge between life in school and life in the world of work" (Beckett et al., 1985 p. 146).

In attesting to the attitudinal side of the issue, its influence both positive and negative is equally powerful. For instance, despite the significant documentation that persons with severe handicaps can be capable workers, the discrepancy between this research and the high unemployment may suggest a poor attitude or a lack of information on the part of employers, rehabilitation counselors, vocational educators, special

educators, and parents (Wehman, 1985). How often one hears comments such as, "It's too costly . . ." "The building is not accessible," . . . "We are not equipped" . . . "The staff is not trained" . . . "We were told he couldn't . . ." On the other hand, children with severe handicaps who are taught from early on to perform household work tasks and subsequently master important vocational competencies imbibe a healthy attitude toward work. For them, the transition is much easier.

"If individuals with moderate and severe handicaps are to live, work and spend leisure time in their home communities, we educators must examine our attitudes, clarify our values and rethink our roles. Examining one's own attitude is a very difficult process. What we would like to feel and what we truly feel, become inextricably intertwined. Our behavior and words are indicators of our true attitudes. Words like 'deficient, remediation, incapable,' are clues to our feelings" (Bliton, and Schroeder, 1986, pp. 20-21).

The Office of Special Education and Rehabilitative Services (OSERS) through Assistant Secretary Madeleine Will (1986) stands on record stating that transition is often made more difficult from the limitations imposed by others' *perceptions* of an individual's disability. On the basis of this stance the present study was conducted.

Methodology

In order to ascertain the degree to which state directors of special education perceive as problems the lack of coordinated adult services and the availability in those that do exist for persons with severe handicaps who are exiting public schools, a survey instrument was designed by the National Association of State Directors of Special Education (NASDSE) and personnel from the U.S. Department of Education, Office of Special Education Programs. The in-

strument was distributed in August 1985 to all 50 state education agencies. The results of a 92 percent return rate were reported in *Severely Handicapped Youth Exiting Public Education: Issues and Concerns* (1986).

The following spring, the identical survey was distributed to all council delegates of the National Association of Developmental Disabilities Councils (NADDC). This constituency included the executive director, the chair and one other delegate from every state and territorial council. The purpose was to find out whether or not the perceptions of the delegates concerning the ability of the adult service delivery system to serve these exiting students were similar to the reported perceptions of the state directors of special education. The intent of this article is to report comparative data from the two groups, discuss consequent implications and offer a set of "next step" activities to be considered.

NADDC Survey

On June 1, 1986, 162 questionnaires were mailed. Initial responses were received from 65 delegates. On July 18, a follow-up reminder was transmitted via a computer-based communication network (SCAN) which resulted in three more responses being mailed in. This produced a final return rate of 42 percent. The operational definition of "student" used in both assessments is as follows: "Individuals who would be considered to have a poor prognosis for living and/or working independently when they leave school and could benefit from community-based living and day programming including supported work."

Results and Implications

Withstanding the limitations of the study, the data reflect strong agreement between and among state directors of special education and NADDC delegates on the problem of accessing adult services for students with severe

handicaps exiting public schools. Preparation to accommodate the needs of these aging out individuals apparently cannot be actualized without the participation of both educators and adult service providers. In only five of the sixteen items on the survey were there major discrepancies. Seven percent of the state directors as opposed to 56 percent of the NADDC delegates believed that recent state legislation and/or appropriations have attempted to expand community based services for school leavers and/or adult populations with substantial disabilities. This would tend to indicate an information gap and may also imply that developmental disabilities people have been more directly involved in and hence more knowledgeable about lobbying for such services than have state directors.

The second item on the survey that exhibited a wide disparity showed that 90 percent of the state directors and only 38 percent of the NADDC delegates agreed with the statement: "State agencies and other adult service providers do not adequately utilize enrollment data and/or exiting data obtained from the public schools when projecting adult service needs." Once again, one may assume a lack of articulation between the two groups. It also seems to suggest that the directors are closer to the knowledge base regarding who uses school data and for what purpose.

Another item appears to highlight communication. Seventy percent of the state directors as opposed to 46 percent of the NADDC delegates thought parents are aware of the fact that adult services are not mandated in the same way that free appropriate public education is. This may indicate there is more interchange between parents and the school system than between parents and adult service providers. An earlier interaction between educators and adult service providers may help to rectify this.

The NADDC delegates appeared less confident (59 percent) than did the state directors (96 percent) in believing that students who leave public school programs are added to current waiting lists. This may indicate that the NADDC delegates would favor more formalized procedures for referring students with severe impairments to adult services.

The last point to be mentioned is that every state director stated that local school districts do not have the resources nor the capacity to follow up school leavers over a period of years, whereas 76 percent of the NADDC respondents attested to this opinion. It might be assumed that state directors do not see this function to be a role of the local education agencies, thereby underscoring the need for transition services.

Overall, the responses of NADDC delegates reaffirmed those of the state directors. Students with severe handicaps exiting public schools are not provided sufficient and appropriate adult services.

"The critical nature of this challenge should lead people to focus in on the consequences of inaction. . ." (Halloran et al., 1986, p. 4).

Imminent Considerations

Given the above mandate, it is incumbent upon the profession to move forward in adult programming by way of both fact and attitude. Current thinking would group some next steps to be taken into five areas: training, research, curriculum, collaboration, and legislation.

Training

One of the most glaring flags resulting from the findings of the present study is the noticeable lack of articulation between and among groups of professionals. Certainly this lack of exchange would call for a cross-fertilization of training of all individuals

Those who have work by and large secure it through a friend or family connection, not through professional job placement services.

whose lives impact upon persons with severe handicaps. This includes nonhandicapped peers, parents, educators, related services personnel, administrators, paraprofessionals, adult service providers, legislators, and employers. Bliton and Schroeder (1986) predict that in the future, "Public schools will be held accountable for providing a functional education for substantially handicapped students and teacher training will be geared more toward teaching and managing individualized functional skill development" (p. 14). This, of course, will not happen without considerable effort. It is important for all the "significant others" to learn from the effective transition models (including no special services, time-limited services and ongoing services) that are currently in place. There are multiple examples of successful components. Find out what are good behavioral training strategies, where to train, how to train, when to change criterion intervention, how often to follow up, what is most cost effective, and how to plan for individual acquisition of adult services.

Research

Although much good information can be garnered by observation and reading, the area of providing appropriate adult services is so important that additional data need to be collected. It is critical for the applied research conducted thus far to be replicated and expanded upon in order that the best and most promising practices can be implemented. As a case in point, "Parents and professionals are reporting with increasing frequency that students with severe handicaps are unable to obtain

even the most basic services at graduation" (McDonnell et al. p. 53).

If students do not receive appropriate transition and adult services, neither they nor their parents know when they are ready for a job. Fear and worry about the unknown breed more complexity and anxiety in parents who have been told all their lives that supported work or competitive employment is either an impossibility or fraught with undesirable side effects for their substantially involved son or daughter (Hill et al., 1986; Beckett et al., 1986).

Research is desperately needed to determine what impression/attitude this leaves on the family and how the impact compounds itself the longer the waiting period for adult services becomes. What correlation exists between increasing increments of waiting and the likelihood that a person with severe handicaps will maximize his or her independence? Is it progressively reduced? Does the cost in terms of time and money increase as the waiting period extends? How does it affect the willingness of employers to look favorably upon hiring such individuals? These are but a few research questions that go begging for definitive answers.

Curriculum

The third area emerging as a state of urgency is the secondary school curriculum. It seems imperative to call for its analysis and reconsideration since secondary programs are not fully responding to the goal of preparing severely handicapped students for the world of work.

". . . Most school-based vocational programs (part-time or full-time) do not heavily emphasize employment or job

placement as a culmination of vocational training experiences. It is usually expected that adult programs will take up this responsibility" (Wehman, p. 220).

That expectation, however, is laden with flaws. First of all, it places an inordinate overload on the adult service system. It is the primary job of educators to teach. Secondly, if students with severe handicaps come to work without the developed skills of responsibility, productivity and independence well ingrained, it is impossible to achieve the same measure of satisfactory performance that would occur had they been given appropriate transition and adult services.

The *Eighth Annual Report to Congress* (1986) indicates that in the 18- to 21-year-old age range 41 percent of handicapped students are served in regular classrooms, 35 percent in separate classrooms, and 22 percent in separate schools. Across all administrative settings the number of students served at age 17 (74,527) makes a dramatic decrease downward to 4,302 at the age of 21. One could conjecture that the largest numbers exiting prior to reaching the maximum age of 21 would be students with mild and moderate handicaps, while those with severe handicaps would more likely remain in school until they age out. "An estimated 300,000 young people may exit from special education this year without the promise of work and community participation" (p. 36).

With these two indicators of successful transition absent to such an extent, it would appear that Individualized Educational Programs woefully neglect this area. Hence, the call for an analysis of secondary programs. This priority is such that Section 618 of P.L. 98-199 mandated a 5-year study to evaluate the educational, vocational, and independent living experiences of secondary students while in special

education and their transitional status/progress after leaving school. The instrumentation has been designed and field-tested. A contract was awarded in early 1987 to begin the first data collection.

Collaboration

Although it is necessary for a formal transition plan to be in place early in a student's secondary education program, this is not to imply that work oriented skill development should first be initiated at that time (NASDSE, 1986). "... Vocational programs for the severely handicapped begin too late in the child's school period" (Wehman, 1983, p. 220).

"An estimated 300,000 young people may exit from special education this year without the promise of work and community participation."

From their very first years in school onward students should be taught general work habits with increasing complexity and age appropriateness (Bruder et al., 1986). "By encouraging parents to include their children who experience handicapping conditions in . . . household work tasks, educators are fostering the development of important vocational competencies and promoting positive attitudes toward work by both parents and their children" (Bates, 1986, p. 152).

Parents are not the only people who should contribute to a young person's healthy transition into an adult world. There is a growing consensus in the field that the orchestration of collaborative efforts among educators, parents and adult service providers brings about the best preparation for an independent and worker outcome oriented life (Wehman, 1983; McDonnell et al., 1986; Will, 1986; Halloran, 1986; Fredericks, 1986; Pasonella, 1986). The latter groups, i.e., adult service providers, encompass com-

munity agencies responsible for mental health, day programs, supported work, residential, leisure, recreation, and rehabilitation.

Linkages and resource sharing between public and nonprofit community agencies such as trade associations, various state councils/commissions, manufacturers, and employers maximize employment opportunities for students with substantial handicaps. The key to making such a program work is coordination.

"Signing interagency agreements alone at any level is not the answer. There are different ways to make agreements work, and a management

structure is needed especially for local interagency coordination, together with funding and technical assistance resources and encouragement to collaborate, and sanctions to make the agreements stick. Administrative planning and a commitment to support interagency agreements are needed at the state level" (NASDSE, 1986 p. 16).

The Office of Special Education and Rehabilitative Services and the Administration on Developmental Disabilities, Department of Health and Human Services, are, at the present time, co-sponsoring 27 supported employment demonstration projects investigating secondary education and transition services for youth who have severe handicaps. Interagency cooperation at the state level was required as a prerequisite to funding. Bringing about a comprehensive change by the pooling of resources basically involves a shifting of dollars now used to support individuals in nonvocational services to supporting them in paid work en-

vironments (Will, 1986). It also implies a shifting of human resources.

"We need to look much more closely at how many professionals such as rehabilitation counselors and vocational educators currently function in the transition process. It may well be that many of these individuals will need to dramatically alter their current job roles and play a more active part in job placement activity. It is questionable whether the high level of unemployment which currently exists [among traditionally underserved persons] will be reduced until this happens" (Wehman et al., 1986 p. 209).

Legislation

The fifth and last area calling for serious consideration as an outgrowth of the current findings is inherently tied to the other four. It appears essential for states without pertinent adult services to mandate time-limited studies on behalf of people with severe handicaps. This would allow for the development of unique state profiles that outline current programming efforts, identify gaps in state policy and project the state's capacity to meet those. Problems may surface in making adult services accessible to persons with severe handicaps who are leaving public schools. If they arise to such an extent that they cannot be alleviated without enabling legislation, then steps must be taken to formulate state law and convince the legislators to pass it. Several states now have exemplary practices in place that effectively move many students along a coordinated continuum of post-school placements and community living/working opportunities (Halloran, 1986). Perhaps history is once again repeating itself. Prior to the enactment of P.L. 94-142, 48 states had legislation on the books either permitting or mandating the education of their school-age children with handicaps (Jones, 1981). The statutorial implementation,

" . . . Most school-based vocational programs do not heavily emphasize employment or job placement as a culmination of vocational training experiences."

however, was so sparse and sporadic across the nation that it took federal legislation to make it a reality. Are we heading in this same direction? If transition and adult services do not become commonplace, it is not without reason to conjecture that one day they also will have to be mandated through federal legislation.

Conclusion

A clear trend emerged from this study. Both state directors of special education and delegates to the NADDC who responded to the survey have the perception that severely handicapped students exiting public schools are provided less than adequate preparation to make a successful and satisfying transition from school to adult work and community life. Implications were drawn from the data collected, and imminent considerations were grouped and suggested in five areas. These called for next step changes to be made by educators and adult service providers alike in training, research, curriculum, collaboration, and legislation.

Genuine change is a process, not an event (Smith-Davis, 1985, p. 57). Therefore, although the advent of P.L. 94-142 emphasized the free appropriate public education of traditionally underserved individuals with severe handicaps in the least restrictive environment, that event alone will not suffice. An environment is least restrictive only when it is most productive (Thomas, 1980). Just as students with severely disabling conditions formerly were underserved in education, it appears that currently they are underserved in adult services in the communities where

they live, attend school and attempt to work. The hue and cry years ago for these students was, "Normalization!" The plea is needed today, even more forcibly. "Normalization" in both fact and attitude!

It is to no one's advantage to allow a brick wall to prevent people with severe disabilities from entering the adult world for which they have been prepared. It is time we open a door and let them pass through. That is the very meaning of transition — a passage from one place to another.

Dr. Thomas is a program specialist in the Division of Personnel Preparation; Dr. Halloran is a program specialist in the Division of Educational Services. Both divisions are under the Office of Special Education Programs, Office of Special Education and Rehabilitative Services, U.S. Department of Education.

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Deaf Subculture

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conscience. Such a climate is not as clearly evident today and, thus, a greater burden falls to consumer groups such as state associations to champion the cause of the deaf citizen in America.

Obviously, such strategies are complex and fraught with potential conflicts of interest which will be hard to resolve. The alternatives, however, may be even more bleak—a withering, gradual dissolution into the oblivion of a tiny minority that talks to itself as the world passes by.

Mr. Hanson is Supervisor, Services to the Deaf and Hard of Hearing, Division of Vocational Rehabilitation Services, State of Iowa.



Language Used or Used Language?

Ron Bourgea

Superabundance. Sue these words for nonsupport.

- *Inflated phrases:* “. . . into the home of the person with a disability” is a long way around saying “into a disabled person’s home” (9 words versus 5). Is it any wonder that this author speaks of “the potential . . . in the educational arena” when he means the “potential . . . in education”?

- When English supplanted French and Latin in its return to ascendancy in Middle English (after the conquest of the Normans), the language “of the people” was strong in its everydayness but lacked the more sophisticated expressions for understanding. Consequently, we “borrowed” words for that expression. Professor George O. Curme, in his book *English Grammar*, comments on these borrowed words: “Though borrowed words are usually everywhere necessary, it still remains true that English words — *father, mother, sister, home, love, hate, life, death, God, etc.* — contain in large measure the power that moves the soul. Many carry the use of borrowed words too far and thus speak without power. Many who have little thought use big borrowed words to hide its thinness, often perhaps fooling themselves, thinking that they are expressing themselves effectively. Borrowed words are often useful in varying our expression and in

making it accurate, but they can easily weaken our expression when used instead of our simple but powerful English words.”

Elongationitisism. The simple form is preferred.

With respect to—about; taking into account—considering; as a matter of fact—actually; care-giving system—hospital or agency or whatever it is!; on a daily basis—daily; 100% attended—all attended; begun the process of—started; and any number of—various, many, several, *etc.*

Careful writing. Simple writing does not necessarily mean clear writing.

Bureaucratic Bias (*Good words that become vogue and, consequently, vague.*) Immediate, as in *immediate supervisor*. I know there will be a furor over my choice here, but, unless a person works directly for several people (not often the case), I see no good use of this add on. I feel that “supervisor” adequately refers to the person you work for directly. Opposition will say, I am sure, that you work for your branch chief and division director, also, and “immediate” refers to your unit boss. But the fallacy becomes evident, by extension, since the person also works for the assistant commissioner, the deputy commissioner, the commissioner, the assistant secretary, the

deputy secretary, the secretary, and the President. I’m sure there are steps missing there somewhere and that there may be even higher authority than the President, if one wants to extend into humanity and spirituality, or, in a facetious vein, into marital relations!

Pastiche.

- A. Kudner in the *Personnel Journal* (Vol. 44, No. 8) says, “When you don’t know what you mean, use big words. They often fool little people.”

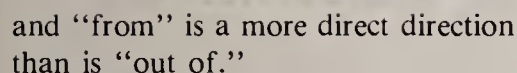
- Who knows to what degree television is contributing to the delinquency of minors (or majors) with its abundance of programs that show (if not promote) violence? But I’ve noted of late a violence against the language. The balance is delicate here since TV’s communication is by image and sound, and we all generally agree that spoken language is more informal. The argument breaks down, however, since most TV programs are first written; *ergo*, they should command a stricter obeisance to correct English. Here are some examples:

From an interview: “I had a euphoric feeling of great joy.” Euphoria is a sense of well-being, of buoyancy.

From a news program: We have all heard of *regulations* in government. Suddenly these regulations became intolerable, so government started to *deregulate*. TV buys that. But, later, when the word looses favor, government starts to *deburden* (which means deregulate without using that word). TV buys that. They’ve also bought *disinformation*. Deburdening is just that, deregulating, and disinformation is just that, lying. We shouldn’t buy either.

From a talk show: “We have accessorized the fashion with . . .” Now, really! Such usage is *accessory after the fact*: jail it.

From a weather program: “. . . cold air out of the North West direction.” “Cold air from the North West” tells it all since North West is a “direction”



For an editor, pure, unmitigated joy is to read a sentence that electrifies understanding. One that enjoys a natural rhythm. One that subjugates itself to understanding. One that is greater than the sum of its words. Here are a few that have impressed me over the years:

“life’s not a paragraph/and death i
think is no parentheses.” e.e. cummings.

“A bird does not sing because he has an answer; he sings because he has a song.” Chinese proverb.

“[Everyone] wants a world larger than his or her own skin to live in.” A research report.

“To everything there is a season, and a time to every purpose under the heavens . . .” Ecclesiastes III, 1.

“ . . . as the scene curls up softly/to a fireball of nothingness/reality becomes sleep.” My 9-year-old grandson.

“They were vanishing into the beginning of their myth.” Mario Puzzo, in *The Sicilian*.

“He fathers-forth whose beauty is
past change: Praise Him.” Gerard
Manley Hopkins.

Mr. Bourgea is former editor, *American Rehabilitation*.

“We’ve been besieged with requests from around the country on how Mainstream has been able to put more than 1,200 disabled job seekers (with a

retention rate of 91 percent) in competitive employment in four years," said Cornelius A. Woods, Mainstream's training director. "And now we're geared up to share our expertise — at a reasonable rate — with rehabilitation professionals and organizations nationwide."

Mainstream's standardized and customized training includes strategies and techniques on how to develop comprehensive marketing plans for reaching out to the business community; effectively address employer concerns and objections about hiring persons with physical or mental disabilities; develop and implement a "no fail" approach in making employer contacts; establish and maintain long-term relationships with employers in order to tap into the "hidden job market"; and increase job placement success in a minimum amount of time.

Rehabilitation professionals who need this type of training and want information on content, costs and scheduling should contact: Cornelius A. Woods, Training Director, Mainstream, Inc., P.O. Box 65183, Washington, D.C. 20035. Telephone: (202) 833-1160 (Voice/TDD)

Mainstream, Inc., is a private non-profit organization established in 1975 to work with employers and service providers to increase employment opportunities for persons with disabilities. Since its inception, Mainstream has provided information and technical assistance on disability employment issues to over 6,000 organizations, agencies and companies.

Mainstream operates Project LINK, an award winning national employment model, which has placed over 1,250 persons with disabilities in competitive employment with a retention rate of over 90 percent. In that effort, Project LINK has established and maintained working relationships with over 400 local, private sector employers which

results in more than 6,000 *real* job openings on an annual basis.

Mainstream has provided training to enhance job development/job placement competencies for more than 1,100 rehabilitation professionals nationally.

Mainstream has developed the Search-Mate System, a time saving computerized job matching process that has been implemented in 11 sites nationally.

Dr. Donovan Heads Spinal Association

William H. Donovan, M.D., became president of the National Association for Spinal Injury (ASIA) at the association's annual scientific meeting held recently in Boston. Dr. Donovan is co-director of the Regional Spinal Injury Center at the Institute for Rehabilitation and Research (TIRR) in the Texas Medical Center.

A specialist in physical medicine and rehabilitation, he has been extensively involved in the rehabilitation of people with spinal cord injury since 1972. He was named Physician of the Year in 1984 by the Texas Governor's Committee for Disabled Persons. He was recognized for his significant contributions to the public's understanding of the employment capabilities of disabled persons and for his efforts to help them improve their employability through rehabilitation.

Dr. Donovan is an associate professor in the Department of Rehabilitation at Baylor College of Medicine. He has conducted numerous research projects related to spinal cord injury, including bladder and pain management.

TIRR's Regional Spinal Injury Center has been designated a model system for 14 years by the National Institute for Disability and Rehabilitation Research, U.S. Department of Education. The center provides a multi-

disciplinary system of services which include emergency care, acute care, rehabilitation services, and community follow-up services that emphasize vocational rehabilitation and health maintenance.

Dr. Donovan has been a member of the board of the American Spinal Injury Association since 1981. The Association's purposes include the promotion of research in spinal injury, education and excellence in patient care.

Clarification

The Topic of State item, "Disability Information Provided Quickly, Free in Illinois," which was printed on page 21 of the April-May-June 1987 issue of *American Rehabilitation*, described an information service provided by the Springfield Center for Independent Living and funded by the Illinois Department of Rehabilitation.

We regret that the article did not make clear that two databases operated by the National Rehabilitation Information Center (NARIC, 4407 Eighth Street, N.W., Washington, D.C. 20017; 1-800-34-NARIC) serve as a resource for the Springfield Center in its response to inquiries: REHABDATA, a file on over 18,000 research reports, journal articles and other references on rehabilitation and disability; and ABLE DATA, a file on over 14,000 commercially available assistive devices.

The Springfield Center for Independent Living makes searches available to requestors in Illinois at no charge. Inquirers may write to SCIL, 426 W. Jefferson, Springfield, Illinois 62702; toll free telephone, 1-800-447-4221 (Voice/TDD).

NLTP

(Continued from page 5.)

and future leaders. It is very much involved in the *business* of training; like any good business it constantly looks to the future in attempts to determine those techniques that will better enable it to meet its objectives. The needs of deaf citizens are *constantly* changing; NLTP is also changing and growing. There is a continual search for excellence, not only in the services that are provided to deaf people—in education or in rehabilitation, in the preparation and training of leaders—but in every area of human endeavor.

Dr. Boyd is Student Personnel Specialist, Support Services to Deaf Students, National Center on Deafness, California State University, Northridge.

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Encyclopedia

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and the various influences that shaped the program as it grew.

Other major topics discussed at length in the encyclopedia that are related to the field of rehabilitation of deaf people are audiology, audiometry, auditory disorders, the ear, the deaf population, deaf-blindness, education, hearing loss, interpreting, language, psychology, sign language, socialization, speech, and telecommunications. Any person or program in need of comprehensive, up-to-date information on the above topics will find the encyclopedia a fully authoritative resource.

Areas that might have been accorded greater attention in the encyclopedia are employment, postsecondary training and multiply handicapped deaf persons. It may be hoped that in subsequent additions to the encyclopedia, more information will be made available on these three topics due to their pertinence to rehabilitation and other human services programs concerned with deafness and deaf people.

Biographies of noteworthy deaf people throughout history provide interesting glimpses into their aspirations and accomplishments. The more recent biographies are important sources of data on postsecondary training opportunities available to the deaf and on new occupational areas in which deaf people are making their mark.

The encyclopedia may be purchased through the Gallaudet University Press, 800 Florida Avenue, N.E., Washington, D.C. 20002, at a cost of \$300.00 per set.

Edna Adler is Assistant Chief, Deafness and Communicative Disorders Branch, Rehabilitation Services Administration.

NARIC

(Continued from page 17.)

NARIC's library also houses a variety of files, including manufacturer catalogs, and information on over 150 related subject areas, such as independent living, job placement and traumatic brain injury. The library resource also includes descriptive materials for nearly 200 different disability-related organizations ranging from the American Foundation for the Blind to the Vineland National Center.

NARIC also prepares written materials that provide targeted information in specific subject areas:

- **Periodical List.** For researchers, educators, students or others with a broad interest in disability-related periodicals, NARIC produces *The Periodical List: A Guide to Disability-Related Journals and Newsletters*. This 1985 publication contains a variety of information including the periodical title, publisher, frequency, and subject areas covered. It is available for \$15. A new edition will be available September, 1987.

- **Rehabilitation Research Reviews.** For researchers, educators and students, *Rehabilitation Research Review* documents summarize the current state of the research on over 30 key topics. Each *Review* contains an overview of the topical research and literature, as well as an extensive bibliography. Current *Review* topics include consumer management of attendant care services, school children dependent on medical technology, and transition for adolescents with hearing impairments. For a complete list of titles and costs, contact NARIC.

- **Resource Directories.** For individuals who want to know about other organizations and resources, NARIC has prepared a variety of charts that can direct users to related resources. These charts include listings of disability-related national organizations,

Call No: 07649

Title	REHABILITATION OF PERSONS WITH LOW BACK PAIN: REHABILITATION RESEARCH REVIEW
Author	Carron, H; Tanenbaum, R L
Institution	National Rehabilitation Information Center DC
Source	80 p
Year	1987 C
Descriptors	BACK PAIN; PSYCHOLOGICAL ASPECTS; REHABILITATION; RESEARCH REVIEWS
Abstract	Annotated review of the literature on the physical and psychological aspects of back pain. Focuses on epidemiological and demographic factors, assessment, surgical approaches to treatment, physical rehabilitation, multidisciplinary therapy and innovative approaches. Discusses chronic pain assessment studies and treatment/rehabilitation programs relating to psychological aspects of chronic back pain. Includes 9 annotated citations and 46 further references.

REHABDATA Sample Listing

Item No: 014888

Generic Name	FOLDING ADJUSTABLE WHEELED WALKER
BrandName	ECONOCYCLE
Manufacturer	American Walker Inc., 797 Market St., Oregon, WI 53575
Availability	MANUFACTURER
Cost	\$555.00 (with hand brakes); \$495.00, 1987
Description	Folding, adjustable, 4 wheeled walker has large front wheels to provide stability on uneven terrain. Rear wheels are 8 inches in diameter and can be set to remain straight or to provide a 14 degree or 360 degree swivel. Has soft cushion hand grips, tubular frame and baked enamel finish. 23 inches wide, 46 inches long. Collapses to 13 inches wide. Height adjusts from 32 inches to 36 inches. Weighs 26 pounds. Optional extras include large or small basket, hand brakes, storage cover, car carrier, AM/FM radio, one hand brake operation, crutch attachment, cane holders, and stroke arm rest tray.
Identifiers	AMBULATION; WALKERS
Comments	30 day money back guarantee. Warranted.

ABLEDATA Sample Listing

information centers/clearinghouses, and public databases containing rehabilitation-related information. Limited free copies are available.

- **State Guides.** For those interested in the contacts for rehabilitation-related information in each state, NARIC has prepared state resource guides. Updated annually, each guide lists the key person, address and phone number for selected organizations such as the VR agency, Protection and Advocacy office, Client Assistance Program, Governor's Committee, and parent representative. Limited free copies are available.

- **Resource Guides.** For families and individuals interested in learning more about a specific disability, NARIC has prepared a series of resource guides. Updated annually, these guides contain information on pertinent organizations and information sources. They also offer suggested reading and list some helpful products. Limited free copies are available.

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Freddi Karp is Public Services Manager, NARIC.

The author would like to thank Susan Flowers, NARIC Director, and Grier Weeks, NARIC Publications Specialist, for their assistance with this article.

AR Subscription Rates Reduced 50 Percent

With the price for nearly everything else going up, *American Rehabilitation* magazine (AR) is pleased to announce that subscription rates for AR have recently been drastically reduced by the U.S. Government Printing Office. Effective now, the annual subscription rate is \$5.00 domestic (down from \$11.00) and \$6.25 foreign (down from \$13.75), for a reduction of more than 50 percent. Single copy rates are \$1.75 domestic (down from \$3.00) and \$2.18 foreign (down from \$3.75).

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PUBLICATIONS & FILMS

Handbook of Group Activities for Impaired Older Adults. A monograph published simultaneously as the journal, *Activities, Adaption & Aging*, Volume 9, No. 2. Elsbeth Martindale Helgeson and Scott Cabot Willis. Haworth Press, Inc., 12 West 32nd Street, New York, New York 10001. 107 pages. Hardcover, \$19.95.

This handbook attempts to provide the foundation for a daily activities program with severely impaired adults. The activities — over 70 of them — are designed and organized to help these clients to obtain as much human interaction as is possible within their limitations and achieve a sense of self-worth. The authors are hopeful that a variety of professionals working with this population will find here an invaluable manual easy to use and flexible enough to be applicable in a range of settings where severely impaired adults are gathered.

Management and Administration of Rehabilitation Programs. Edited by Roy I. Brown. College-Hill Press, Little, Brown and Company, 4284 41st Street, San Diego, California 92105. 300 pages. Hardcover, \$32.50.

This is the second volume in *Rehabilitation Education: A Series in Developmental Handicap*, which is designed to bring together diverse aspects that relate to education, welfare and quality of life of handicapped people. This volume addresses issues in management and administration of a wide range of topics such as the employment of disabled people, how to establish service priorities, evaluating services and promoting innovation.

Sociocultural Implications in Treatment Therapy Planning in Occupational Therapy. Florence S. Cromwell, editor. Haworth Press, Inc., 12 West 32nd Street, New York, New York 10001. 171 pages. Hardcover, \$29.95.

This book examines many of the major cultures, including Hispanic, Asian, Black, Appalachian, and Native Canadian, and their specific health beliefs and practices.

Community Integration for People with Severe Disabilities. Steven J. Taylor, Douglas Biklen and James Knoll, editors. Teachers College Press, Teachers College, Columbia University, 1234 Amsterdam Avenue, New York, New York 10027. 256 pages. Hardcover, \$31.95; softcover, \$18.95.

This book attempts to provide a comprehensive review of the issues involved in integrating people with severe handicaps into the community. It establishes a policy for noninstitutional living, describes and analyses a number of innovative community-based services, and presents various strategies for dealing with the behavior and needs of disabled people in community settings.

Deafness in the Family. David Luter-man. College-Hill Press, Little, Brown and Company, 4284 41st Street, San Diego, California 92105. 140 pages. Softcover, \$22.50.

In writing this text, which is basically about families and how they may be affected by childhood hearing impairment, the author has drawn on his experience in counseling to analyze the reactions to deafness in three families he came to know intimately.

Early Intervention: Considerations for Establishing Programs. National East Seal Society, 2023 West Ogden Avenue, Chicago, Illinois 60612. 90 pages. Soft-cover, \$20.00 plus \$3.95 for postage and handling.

This new Easter Seal publication is designed to help agencies determine the appropriateness of developing or expanding early intervention programs. This resource reviews both the state of the art of early intervention programs and major trends affecting service delivery.

Community-Based Rehabilitation of the Rural Blind. A Training Guide for Field Workers. J. Kirk Horton. Division of Educational and Rehabilitation, Helen Keller International (HKI), 15 West 16 Street, New York, New York 10011. 124 pages. Spiral bound. Free to organizations that assist blind and other disabled persons. A \$10.00 fee is asked to cover the expenses of handling and mailing. A companion document to the manual, **A Syllabus for Trainers**, is also available from HKI for a \$10.00 handling fee.

HKI's new handbook aimed at low-cost rehabilitation for people in remote areas of developing countries is receiving attention from professionals who work in the rural United States and from the American Council on Rural Special Education. The manual covers all points included in a course developed by HKI to equip local high school graduates — field workers — to impart basic skills to 37 million blind people in the third world. The goal is to bring the blind person to full independence in 6 months.

The activities described in the manual are geared to promote villages rather than urban centers and include orientation and mobility; daily living functions; basic education in elementary braille, numbers, weights, and measures; and vocational skills useful for local employment.

REPORT RESOURCES

LEARNING FROM THE BEST. The J.M. Foundation, 60 E. 42 Street, New York, New York 10165.

This publication highlights the nation's top vocational programs which were selected in the first "National Search for Excellence" competition.

For further information, contact: Jack Brauntuch, Executive Director, or Chris K. Olander, Senior Program Officer, at (212) 687-7735.

PRESERVING THE QUALITY OF HEALTH CARE IN A CHANGING ENVIRONMENT. National Health Council, 622 Third Avenue, New York, New York 10017-6765. 48 pages. \$8 (\$6 for Council members).

Summary of the proceedings of the 34th National Health Forum held March 26-27, 1987, in San Diego, where health administrators, government officials, business executives, academicians, physicians, and other health professionals shared a variety of views on the question of quality in the delivery of health care.

FOR-PROFIT & NONPROFIT HEALTH CARE: ARE THE DISTINCTIONS BLURRING? National Health Council, 622 Third Avenue, New York, New York 10017-6765. 28 pages. \$7 (\$5 for Council members).

This report is a summary of the proceedings of a seminar June 20, 1987, in Washington, D.C.; it highlights the salient points and quotes from 14 expert presenters who addressed such areas as: Is the rise of for-profit health care threatening the values and ideals embodied in nonprofit health care? How

"unlevel" is the playing field? Are nonprofit and for-profit institutions actually behaving very similarly in order to compete in a dog-eat-dog competitive marketplace? If so, will this trend exacerbate current access problems in the system and promote multi-tiered health care? Are the advantages of tax-exempt status enjoyed by nonprofit providers still meritorious? How will physicians balance ethics and economics as their financial pressures mount and new investment opportunities arise?

COMPILATION OF STATISTICAL SOURCES ON ADULT DISABILITY offers technical information on 30 major surveys and other data collection efforts covering functional limitation, specific disabilities and conditions, work disability, disability with respect to transportation, persons in residential facilities, and recipients of federal benefits and services. For each survey, information is given on the survey objectives, sample size, survey design, response rates, sampling error, availability of public use tapes and their characteristics, reports reflecting prior uses of the data file, and a brief assessment of the survey. Also included is a description of variables covered: age, race/ethnicity, family income, family composition, employment status, rural/urban residence, presence of specific disabling conditions and related limitations in functional performance. A bibliography lists selected references, some of which are annotated. **SUMMARY OF DATA ON HANDICAPPED CHILDREN AND YOUTH** gives tables from major federal and private surveys containing information on disability in children. The tables give

data on prevalence of disabling conditions, use of medical services, family structure, caretaking arrangements, children in residential facilities, and students served in special education programs. A section on each data collection procedure details specifics on methodology and variables covered. The publication also includes a summary of information contained in the tables and a discussion of methodological considerations.

FOCUS. National Council on the Handicapped, 800 Independence Avenue, S.W., Suite 814, Washington, D.C. 20591. No cost.

Quarterly newsletter reporting on the activities of the Council, as well as issues pertinent to people with disabilities. The first issue included articles on equal opportunity for disabled persons, Council forums and the Harris Poll on employment.

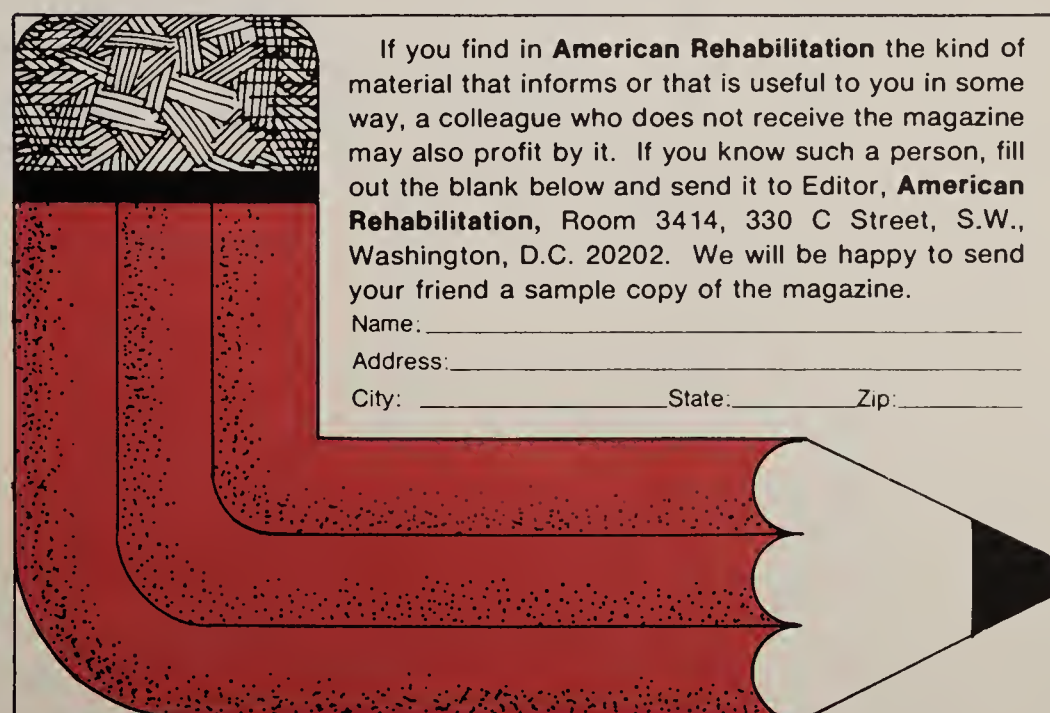
DIGEST OF DATA ON PERSONS WITH DISABILITIES, produced by the Congressional Research Service, Library of Congress, and reprinted by the National Institute on Disability and Rehabilitation Research (NIDRR) in 1984, is a compilation of published and previously unpublished data on disability. It includes such topics as impairments, work disability, limitation of activity, and employment. Data are presented in table and chart form. Highlights and explanatory notes accompany each table to assist the reader in interpreting the data. These three publications are available at no charge from NIDRR, Mail Stop 2304, Attention: Inez Marie Fitzgerald, U.S. Department of Education, Washington, D.C. 20202. Requestors are asked to send an addressed mailing label for each title ordered.

UTILIZATION: THE CHALLENGES OF TRANSFERRING INNOVATIONS IN REHABILITATION AND SPECIAL EDUCATION. Thomas Backer, Ph.D., Human Interaction Research Institute. 97 pages. A volume in the *Rehabilitation Research Review* series published by the National Rehabilitation Information Center (NARIC), 4407 Eight Street, N.E., Washington, D.C. 20017. The charge for each *Review* is 5 cents a page with a \$5.00 minimum. Requestors obtain a listing of all *Reviews* available.

As the author explains, the *Review* is "about utilization strategies in rehabilitation and special education — what works, why and how the effectiveness of these activities can be increased." He provides a brief history of utilization in both fields and offers a comparison of the two areas. Dr. Backer enumerates and discusses four challenges of utilization, six key strategies and nine unexamined issues affecting utilization. He also outlines recommendations for enhancing utilization.

REVIEW OF PLACEMENT LITERATURE: IMPLICATIONS FOR RESEARCH AND PRACTICE. David Vandergoot, Ph.D., Human Resources Center. 64 pages. A volume in the *Rehabilitation Research Review* series published by the National Rehabilitation Information Center (NARIC), 4407 Eight Street, N.E., Washington, D.C. 20017. The charge for each *Review* is 5 cents a page with a \$5.00 minimum. Requestors obtain a listing of all *Reviews* available.

This comprehensive analysis of research on the placement of disabled people into competitive employment is organized according to five interdependent components of the rehabilitation system: services, clients, staff factors, administrative factors, and external linkages. Dr. Vandergoot concludes that "many traditional services and administrative practices seem to do very little to help clients get jobs, much less good jobs." However, he further states that "research will point the way for vocational rehabilitation and for reallocating resources."



If you find in **American Rehabilitation** the kind of material that informs or that is useful to you in some way, a colleague who does not receive the magazine may also profit by it. If you know such a person, fill out the blank below and send it to Editor, **American Rehabilitation**, Room 3414, 330 C Street, S.W., Washington, D.C. 20202. We will be happy to send your friend a sample copy of the magazine.

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Jan-Feb-Mar 1988

AMERICAN REHABILITATION





Which employee is disabled?

Employers do not think it matters!

When talents are applied to their appropriate jobs, abilities soon outweigh disabilities.

Paula Dietz • Indianapolis, Indiana • The President's Committee on Employment of the Handicapped



AMERICAN REHABILITATION

Volume 14, Number 1 The weakest ink is better than the strongest memory. Jan-Feb-Mar 1988

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Caseload Trends in the State-Federal VR Program

Lawrence I. Mars

The state-federal program of vocational rehabilitation is conducted in accord with the Rehabilitation Act of 1973, as amended. Much earlier, however, a state and federal partnership in providing services to disabled adults, supporting and enhancing their employment prospects, was first forged in 1920 with the signing of the Smith-Fess Act. In the first year of operation, 523 people were vocationally rehabilitated. The program has grown considerably since then in every measurable way—in complexity, the kinds of disabled people served, the types of services available, the variety of service approaches offered, the kinds of outcomes permitted, funding, and the numbers of people participating in the program.

The analysis presented below brings the conduct of the state-federal program up to date through fiscal year 1987 in terms of the volumes of cases of disabled people entering or not entering state rehabilitation agency caseloads; being closed out whether successfully or not; and still in various stages of the rehabilitation process as the fiscal year ended. Where appropriate, caseloads of severely disabled people are discussed. Certain analytical measurements, such as rehabilitation rates and acceptance rates are employed and defined.

The source document for the data in-

cluded in this analysis is the *Quarterly Cumulative Caseload Report*, Form RSA-113, reported by 86 state vocational rehabilitation agencies.

Summary

Caseload activity in the state-federal program in fiscal year 1987 brought in its wake a mixed, but familiar, pattern of increases and decreases in key caseload measurements, as well as some signs that the long-term contraction in the number of active cases served may soon be broken. In general, all major caseload indicators describing the active caseload declined in fiscal year 1987 from the year before, but most of those relative to applicants for services increased. In addition, virtually every measurement of any consequence dealing with severely disabled people increased, while the total workload of cases available during fiscal year 1987 advanced for the third consecutive year. Thus, two distinct shifts in the caseloads of state agencies were taking place in 1987. In the first instance, relatively more of state agency caseloads were composed of applicants and fewer of active cases—those being served after acceptance for rehabilitation services. In the second instance, caseloads of severely disabled people continued their inexorable in-

crease in both absolute and relative terms among all active cases.

Leading the losses in active cases was the number of people rehabilitated, which fell by 1.7 percent from fiscal year 1986 to 219,616, the second consecutive decline. Yet another loss was sustained in the number of people served, this time by 0.7 percent of 917,482, continuing a long downward trend, now at 12 consecutive years. The last four of these declines, however, have been rather small, under 1 percent per year. The number of people accepted for services in 1987 was 0.5 percent less than in the year before. Clients still being served as the fiscal year ended were 0.8 percent less than the comparable total 1 year earlier, continuing the uninterrupted contraction in the active case backlog for the 12th straight year. At the same time, the rate at which closures from the active statuses resulted in rehabilitations—a measurement referred to as the rehabilitation, or success, rate—fell to 62.9 percent in fiscal year 1987 compared to 63.7 percent in the previous year, the second consecutive decline. Also falling for the second year in a row was the acceptance rate—the percent of applicant cases processed for program eligibility that were accepted for services—this time to 57.7 percent from 58.3 percent in fiscal year 1986.

Despite the overall diminution in the active caseload, the number of applicants increased as measured by (a) new applications, up 0.3 percent in 1987 from the prior year, and (b) applicants awaiting eligibility determinations on September 30, 1987, up 3.5 percent from the same date 1 year earlier. This end-of-the-year level represented the third increase in as many years and was of a sufficient magnitude to permit, but not necessarily guarantee, a rise in new acceptances for services in fiscal year 1988 and, possibly, the first increase in people served since 1975.

More good news was seen in gains, although modest, in the number of severely disabled people who were rehabilitated and served in fiscal year 1987. Those rehabilitated increased by 0.8 percent from the prior year to 136,442 and those served by 0.6 percent to 583,688. For both caseload statistics, the gains represented increases for the fourth consecutive year. Accompanying these absolute rises was the continuing increase in the proportion of the active caseload accounted for by severely disabled people, reaching 62.1 percent of all people rehabilitated and 63.6 percent of all those served, both record highs. Since the proportion of all people accepted for services who were severely disabled reached another record high in 1987 (64.9 percent), future increases in the proportion of the severely disabled among all people rehabilitated and served are expected.

The foregoing national trends represent the net effects of activities conducted in all state rehabilitation agencies in fiscal year 1987 and do not necessarily characterize what happened in specified agencies. Despite the overall decline in persons rehabilitated and served, for example, 43 state agencies experienced a gain in rehabilitations and 38 in persons served. An informal survey was conducted early in fiscal year 1987 to determine which factors were operating to

cause caseload declines in certain agencies. While each situation was different, three broad influencing factors were identified. These were:

- increased concern with the delivery of quality services to disabled people;
- more careful compliance with eligibility and closure requirements through the implementation of management control systems and other means; and
- personnel difficulties brought on by hiring freezes, the presence of inexperienced staff and employee turnover at both the counselor and managerial levels.

Virtually every measurement of any consequence dealing with disabled people increased.

The increase in new applicants and in the backlog of applicants at the end of fiscal year 1987 may indicate that some agencies are beginning to put these problems behind them.

Total Workload

The total number of people whose cases were carried by state agencies at some time in fiscal year 1987 as applicants, extended evaluation cases or active cases came to 1,446,117, a gain of 0.3 percent from the total agency workload in the previous year. This marked the third consecutive increase in overall agency workloads, but the gains each year have been small (under 0.5 percent). The proportion of the total workload accounted for by cases in the active caseload had declined in recent years while the proportion composed of applicants has increased.

On September 30, 1987, state agencies were carrying 844,785 applicant, extended evaluation and active cases in their caseloads, a gain of 0.1 percent

from the total 1 year earlier. This carry over level has remained virtually unchanged in 5 of the last 6 years.

People Rehabilitated

State rehabilitation agencies successfully rehabilitated 219,616 disabled people in fiscal year 1987, a loss of 3,738, or 1.7 percent, from the 1986 total of 223,354. This was the second consecutive decline in rehabilitations after 2 years of increases continuing the generally declining trend since the mid-1970's, just after passage of the Rehabilitation Act of 1973 with its emphasis on providing services to more severely disabled people. Agencies for

the blind experienced a 2.3 percent increase in rehabilitations totaling 9,390 in fiscal year 1987, but they accounted for only about 4 percent of all rehabilitations. General and combined agencies, on the other hand, had a 1.8 percent loss in rehabilitations.

The number of severely disabled people rehabilitated in fiscal year 1987 was 136,442, an increase of 1,106 people, or 0.8 percent, from the year before. This was the fourth consecutive increase after 4 years of decline subsequent to fiscal year 1979 when 143,375 severely disabled people were rehabilitated, the highest total ever. Agencies for the blind showed a 2.9 percent increase in rehabilitations of the severely disabled, while general and combined agencies increased their rehabilitations by 0.7 percent from fiscal year 1986.

Severely disabled people accounted for 62.1 percent of all people rehabilitated in 1987, the highest proportion ever attained and the 13th increase

in as many years. When this proportion was first obtained in fiscal year 1974, only 31.6 percent of all rehabilitated people were classified as severely disabled. The large majority of state agencies had increases in fiscal year 1987 from the prior year in the proportion of rehabilitated people who were severely disabled, involving 40 of 57 general and combined agencies and 7 of 12 agencies for the blind which rehabilitated at least 1 nonseverely disabled client in the last 2 years.

Rehabilitation Rate

The overall rehabilitation rate—the percentage of successful rehabilitations among all people whose cases were closed from the active statuses—fell to 62.9 percent in fiscal year 1987, the second decline in a row. The rate in 1986 was 63.7 percent. Although the rehabilitation rate has ranged narrowly from 61.4 percent to 64.9 percent for more than a decade, a swing of only 1 percentage point can make a difference of 3,500 rehabilitations each year, a figure which is 1 percent of the approximately 350,000 active cases typically closed out each year. Rather high rehabilitation rates (those in excess of 70 percent) occurred in 8 general and combined agencies and in 16 agencies for the blind. Only two agencies, one general and one blind, were unable to achieve a rehabilitation rate of at least 50 percent.

The rehabilitation rate among severely disabled people remained virtually the same in fiscal year 1987, 61.9 percent compared to 62.0 percent in the year before. In the 12 years in which this measurement has been available, it has varied narrowly from 58.9 percent to 62.5 percent. In contrast, however, the rate for nonseverely disabled people fell to its lowest level ever, 64.7 percent in fiscal year 1987 compared to 66.4 percent in 1986. The 2.8 percentage point difference in the rehabilitation rates between severely and nonseverely disabled

people — 61.9 percent vs. 64.7 percent, respectively — is the smallest ever recorded and indicates that increasing numbers of nonseverely disabled people present problems impeding their successful rehabilitation over and above the limiting nature of their disabilities. These problems can include, but would not be limited to, a poor work history, limited educational attainment and dependence on various forms of public support. High rehabilitation rates for severely disabled people in excess of 70 percent were recorded in 10 general and combined agencies and 16 agencies for the blind. At the other extreme, only three general agencies and one agency for the blind had rehabilitation rates below 50 percent.

People Served

State rehabilitation agencies served 917,482 people in fiscal year 1987, a decline of 6,292 people, or 0.7 percent, from the 1986 total of 923,774. This marked the 12th consecutive decrease with each of the last four declines, however, having been less than 1 percent per year. Caseload relationships are such that the long downward trend in people served can be halted by a modest gain of 1.3 percent in new acceptances in fiscal year 1988 compared to 1987, involving only about 4,600 additional cases. The increase in the carry over of applicants into fiscal year 1988 was of a sufficient magnitude to permit the gain in new acceptances to reach or exceed the 4,600 figure, but this will not necessarily occur. In contrast to the overall decline in people served in 1987, agencies for the blind had an increase of 0.4 percent to 37,091 people, but, again, they accounted for only about 4 percent of the total.

The number of severely disabled people in receipt of services in 1987 increased by 3,346 cases to 583,688, a gain of 0.6 percent from the prior year and the third gain in the last 4 years. In

earlier years, the number of severely disabled people served had declined annually from fiscal year 1979, when a record high of 611,994 people were served. The increase in severely disabled people served was 0.1 percent for agencies for the blind and 0.6 percent for all the other agencies.

Severely disabled people accounted for 63.6 percent of all people served in 1987, the highest proportion yet recorded. This continued the uninterrupted gain in the proportion since the statistical services began in fiscal year 1976, when only 44.8 percent of all people served were classified as severely disabled. The large majority of state agencies experienced increases in 1987 from the year before in the proportion of people served who were severely disabled, encompassing 35 of 57 general and combined agencies and 7 of 14 agencies for the blind serving at least 1 nonseverely disabled person in the last 2 years.

People Still Receiving Rehabilitation Services as the Fiscal Year Ended

On September 20, 1987, there were 568,337 people still in receipt of rehabilitation services, a decline of 0.8 percent from the same date 1 year earlier. This caseload carry over has declined in each of the last 12 years since the highest end-of-year level of 778,448 was recorded on June 20, 1975 (a different fiscal year cycle was used at the time). Importantly, however, the rate of decline in the end-of-year count has slowed to an average of under 1 percent in each of the last 5 years, after averaging more than 4 percent in each of the 5 previous years. In terms of caseload relationships, the backlog of active cases on hand at the end of the year will expand once again when new acceptances in a year exceed active cases closures, a combination of circumstances which has not occurred in more than a decade.

A rather different backlog pattern has

**Number and Percent Change in Key Rehabilitation
Caseload Indicators, Fiscal Years 1986 and 1987**

	Fiscal Year		Percent Change
VR Clients	1987	1986	
All People			
New Applications	600,354	598,340	+ 0.3
Applicants, September 30	256,951	248,252	+ 3.5
New Acceptances	344,553	346,173	− 0.5
Acceptance Rate	57.7%	58.3%	− 1.0
Active Cases, September 30	568,337	572,923	− 0.8
Rehabilitations	219,616	223,354	− 1.7
Rehabilitation Rate	62.9%	63.7%	− 1.3
Rehabilitations Per 100,000 Population	90	92	− 2.2
Served (Statuses 10-30)	917,482	923,774	− 0.7
Served Per 100,000 Population	372	378	− 1.6
Total Workload (Statuses 02-30)	1,446,117	1,442,316	+ 0.3
Severely Disabled People			
New Acceptances	223,448	218,857	+ 2.1
New Acceptances—Percent of Total	64.9%	63.2%	+ 2.7
Active Cases, September 30	363,180	361,975	+ 0.3
Active Cases on Hand— Percent of Total	63.9%	63.2%	+ 1.1
Rehabilitations	136,442	135,336	+ 0.8
Rehabilitations—Percent of Total	62.1%	60.6%	+ 2.5
Rehabilitation Rate	61.9%	62.0%	− 0.2
Served (Statuses 10-30)	583,688	580,342	+ 0.6
Served—Percent of Total	63.6%	62.8%	+ 1.3

emerged relative to cases of severely disabled people. Initially, there were annual increases in the backlog through fiscal year 1979 as increasing numbers of severely disabled people entered state agency caseloads. Thereafter, decreases were generally registered for 5 years while little change has occurred in the last 3 years. The carry over of severely disabled people on September 30, 1987, was 363,180, a gain of 0.3 percent from the same date in 1986 and virtually the

same level as of September 30, 1985. A very steep decline has occurred in the backlog of cases of nonseverely disabled people which, at 205,157 cases on September 30, 1987, represented nearly a 50 percent decline in the last decade. Concomitantly, the proportion of the total backlog of active cases composed of severely disabled people has risen in every year to a record high 63.9 percent on September 30, 1987, after starting at 46.4 percent when first measured at the

end of fiscal year 1976.

Applicants for Rehabilitation Services

The number of people newly applying for rehabilitation services in 1987 totaled 600,354, an increase of 0.3 percent from the year before, and the fifth consecutive year during which new applicants have been within about 1 percent of the 600,000 level. In the peak year of fiscal year 1975, new applica-

(Continued on page 24.)

Turning Deaf Ears to the Law

Jerome D. Schein, Ph.D.

Can a person who does not hear succeed in the arduous, orally oriented preparation for a law degree? Addressed to a rehabilitation counselor, the answer need not be speculative: it is a loud YES, given by three recent graduates of the New York University School of Law. Despite their hearing difficulties, these deaf young men are now pursuing their chosen careers with excellent results. They kindly agreed to cooperate in this article by providing information in person or by mail about their experiences in law school and after. Here briefly are their stories.



Michael Chatoff

The first deaf graduate's early history was quite different from the other two.

Michael Chatoff was born with normal hearing. In his first year at Brooklyn Law School, bilateral acoustic tumors were discovered and the subsequent surgery left him deaf. Nonetheless, he received his Juris Doctor in 1971, without receiving any special assistance.

In October 1972, a year after he was sworn in as a member of the bar and after initial employment with a title insurance company, Chatoff went to work for West Publishing Company as a legal editor—a position he still holds. That year he also entered New York University to obtain a master's degree in jurisprudence, specializing in the legal problem of physically disabled people. In the next 10 years, his *pro bono* legal efforts have included filing suit with the New York Public Services Commission to obtain lower rates for people who depend upon special equipment to use the telephone, petitioning Congress for legislation awarding income tax exemptions for deaf people, and preparing a bill granting broader interpreter services to deaf people. He also sought improved media services for hearing impaired people.

But his most spectacular case so far is one on behalf of Amy Rowley, a second grade student in the Hendrick Hudson Central School District. Deaf from birth, Amy is intelligent (IQ of 122) and has some residual hearing that enabled her to make good academic progress. Her parents, both of whom are deaf, felt that she would do even bet-

ter if she were provided with a sign language interpreter in her classes. The school district refused, saying it was giving Amy all the law required, which was "reasonable accommodation." Under P.L. 94-142, Chatoff sued. He took the case to the U.S. District Court, where he convinced Judge Vincent Broderick to agree with the plaintiff's position. Subsequently, the Circuit Court of Appeals upheld the Broderick decision. However, in 1982, the Supreme Court decided in favor of the School District, affirming Chatoff's argument that Amy was entitled to special aids, but agreeing with the defendant that it had a right to determine what was reasonable.

Of considerable importance was a break in Supreme Court tradition introduced by Chatoff. To enable him to follow the oral arguments and questions, Chatoff asked the Court for permission to use a computer that translated into readable English and displayed on a television monitor what the court stenographer typed. The Court's permission to use the device is the first recorded instance in its history of machinery being permitted during oral arguments before it.

The second graduate to hurdle the seemingly insurmountable barriers to education in law is John A. Tolleris. He was born with severely impaired hearing, unable to understand speech by sound alone. He pursued his elementary school education in special classes of the

New York City Public Schools and attended P.S. 158, School for Hearing-Language-Impaired Children. In his junior and senior high school years, he attended private schools, where, except for weekly speech therapy, he asked for and received little assistance. When he decided on the law as his professional goal, Tolleris did not make an issue of his hearing impairment. He simply applied to and was accepted by the New York University School of Law, which took into account his splendid record of academic achievement at Lafayette College in Easton, Pennsylvania, and accepted that as the necessary proof of his ability to overcome his hearing loss. Tolleris graduated in 1978. Immediately after graduation he took a position with the Office of Chief Counsel, Internal Revenue Service, where he is now completing his ninth year as Attorney Adviser in the Legislation and Regulation Division in Washington, D.C. He has been involved in the drafting and publication of regulations, including those for safe harbor leasing, employment tax deposits and tax exempt industrial development bonds.



John A. Tolleris



Michael Schwartz

Michael Schwartz was also born deaf. He graduated *cum laude* from Brandeis University and then went to Northwestern University, where he obtained a master's degree in theatre arts. Schwartz noted, "I learned sign language at Northwestern University, where, ironically, I had learned to speak 20 years earlier." After graduation, he became a teacher of drama at the North Carolina School for the Deaf. Next he joined the National Theatre of the Deaf, where he won the role of D'Artagnan in *The Three Musketeers* and toured the United States as that flamboyant Gascon. Though successful as an actor and teacher, Schwartz decided he wanted a career in law. He gained acceptance to New York University Law School, from which he received his J.D. in 1981. He then became a clerk for Judge Broderick, about whom Schwartz learned as a result of the Rowley case. At the end of a year he gained an appointment as Assistant District Attorney in the Appeals Bureau of the New York County District Attorney's Office, the position he now holds.

As an Assistant District Attorney,

Schwartz has already set his own legal precedent: he is the first to plead a case with the aid of a sign language interpreter. Indeed, he has already tried eight cases with considerable success. In each of these instances, he has used an interpreter to keep him informed of everything that is said in the courtroom. Schwartz speaks well for himself.

Legal Education

What is it like to sit in class and not be able to hear the professor nor the discussions of other students? For Michael Schwartz, a single word sums up the experience—*boring*. Even with the aid of a sign language interpreter, Schwartz found that he depended mostly on his own reading to master his courses. Tolleris and Chatoff, neither of whom knew sign, had to depend upon lipreading (extremely difficult when professors speak to the class while facing the blackboard or when discussions involve students around the room). Chatoff noted, "I kept up with everyone else by reading about twice as much as the assigned material." Tolleris observes that law professors favor the Socratic as opposed to the lecture method. When questions are being answered behind the hearing impaired person, it is impossible to determine what was said. Tolleris found that some of his professors restated the answers, enabling him to follow the discussion, but most did not. As students, all three made use of note takers and spent extra time reading, reading, reading. Schwartz writes, "Certainly, N.Y.U. gave me no cause for complaint with respect to services and assistance, and I am grateful to the university." Most importantly, all three gained their academic objectives.

Berger Deaf Scholars Fund

Valuable to the education of these three deaf students has been the support of the Berger Deaf Scholars Fund. The

(Continued on page 25.)

Horticulture Hiring the Disabled

a study in cooperation and adaption

Peter Bartnicki
Kim Preston

Horticulture Hiring the Disabled (or HHD-Transition), an experimental rehabilitation project in southwest Alabama, attempts to address two major challenges: The first is to assist developmentally and learning disabled youths in making a transition from school to work through jobs in the horticulture field. The second challenge is to assist one of the area's largest groups of businesses in meeting their labor needs, which is becoming increasingly difficult due to the nature of the work.

This overview of the project is a chronological history of events, occurrences, successes, and mistakes. Hopefully, some of the insights gained and experiences encountered will serve others in their attempt to institute transitional programming for the disabled.

The model described here is also somewhat unique as no independent "stand alone" training component was created. The initiative really involved coordinating existing services and systems and making modifications when necessary to reach the established goals.

Horticulture Hiring The Disabled (HHD) got its start in the Mobile area on April 15, 1986, through a 3-year grant award jointly sponsored by the U.S. Department of Health and Human Services and the National Council of Therapy and Rehabilitation through

Horticulture. The award was made to Goodwill Industries of Mobile Area, Inc., to enable them and the South Alabama Nurserymen's Association to develop a project model which would increase employment opportunities in the horticulture field for learning and developmentally disabled youths aged 16-23.



In the award announcement, the Administration on Developmental Disabilities, U.S. Department of Health and Human Services, outlined the reasons the Greater Mobile Area was

considered an excellent site for this national demonstration project: Over 350 firms generate a sales volume in excess of \$100 million annually from 5,300 acres under cultivation for ornamental plants and shrubs. In addition, over 370 job openings occur each year due to growth or replacement. These factors, combined with existing horticulture education programs at the secondary or post secondary levels, as well as a unified service delivery system for disabled people, make southwest Alabama an environment highly conducive for creating and expanding employment opportunities for learning or developmentally disabled youths.

As background information, the reader should know that Goodwill Industries of Mobile Area, Inc., is one of several agencies dedicated to serving the needs of disabled people in a fully integrated complex in Mobile. Support and commitment was solicited and received from all agencies in the complex, including the State Vocational Rehabilitation Service, in order to identify and recruit youth who would benefit from the program. Agencies involved in the effort include the Mobile Association of Retarded Citizens, Easter Seals, A. S. Mitchell Industries for the Blind, and Mobile Mental Health.

Individual nurserymen were also contacted, and through their association a number volunteered time and assistance in establishing project goals and activity plans as well as agreeing to serve on an advisory council to assist Goodwill staff in the operation of the project.

Shortly after the grant award was announced, all of the needed elements were in place to make the project viable.

Initial Planning

The Business Advisory Council met regularly with Goodwill staff and worked out a general plan to create a comprehensive delivery system. Tasks involved included identifying jobs and needed modifications; outlining curriculum design models for educational institutions; developing screening tools and methods to select appropriate youth candidates; identifying peak recruitment and job placement periods; and reviewing existing support systems and deficiencies.

With the completion of the initial planning process, it was time to begin the three implementation phases:

- Research and Development/Project Design
- Recruitment — Selection and Employment
- Evaluation and Replication

Research and Development Phase

Throughout the Research and Development phase, Goodwill staff and individual employers were able to maintain an active dialogue. The experience became a real learning process for everyone. Project staff soon realized that the work involved in operating a profitable nursery was physically demanding as well as diverse.

Through a detailed job task analysis which involved Goodwill personnel and some volunteer college students from the University of South Alabama actually performing job functions for several weeks, an appreciation of needed

physical attributes was realized. Through the analysis, nurserymen became aware of some modifications which could be made that would not affect production requirements and would ultimately allow them to use learning and developmentally disabled youths as a labor source in several job categories.

When the time came to look at provisions being made by education in the horticulture area, it soon became apparent there was a tremendous gap in what was needed compared to what was being taught. At the post secondary university level, only highly advanced, technically oriented courses were being offered. Vocational schools on the high school level offered programs that concentrated primarily on landscaping and food or flower growing. As a result, a subcommittee of the South Alabama Nurserymen's Association and project staff was formed and encouraged to work with the area educators to foster needed changes.

Screening and selection methods for trainees and potential employers also were examined during this phase. Many recommendations were considered regarding the best method for selection, but, because the participants agreed there probably were as many approaches as there were companies and candidates, no single method was chosen. Goodwill staff were then charged with working up a variety of instruments for the selection process.

Client support systems were also reviewed and deficiencies were identified. Chief among the deficiencies noted is a lack of adequate and reliable transportation to get urban residents to rural job sites. Solutions to the problem have not as yet been found, but efforts are continuing with the county transportation system.

To culminate the research and development phase of the project, a

statement of project goals was developed and the roles of the participating agencies, institutions and businesses were defined. The goals are:

- To develop effective methods of recruiting and screening learning and developmentally disabled youth for the horticulture industry's labor needs.

- To make an impact on two Mobile County high schools — Mary Montgomery and the Bryant Center — by assisting them in developing or modifying programs related to horticulture to meet industry standards.

- To promote recruitment within the school systems to fill horticulture vocational and cooperative education programs.

- To develop and have access to a post secondary educational program at Carver State College that will lead to an associate degree in a horticulture related field.

- To develop an industry-funded recruitment and advocacy position which will continue the recruitment methods developed and established through this project and will continue to work on behalf of the industry with the education system and the disabled youth population.

The roles as defined are:

- *Goodwill* will develop effective strategies to insure closer cooperation among advocates for the disabled, education and the area Nurserymen's Association, as well as, work toward a replication of the project funded by alternative sources, where appropriate, and by industry.

- *Education and disabled advocacy agencies* will develop effective measures with the Nurserymen's Association in appropriate forums to update programmatic requirements/curriculums and encourage the appropriate student population to consider horticulture cooperative education programs and related employment.

(Continued on page 27.)

The Massachusetts Statewide Injury Program Head

Debra S. Kamen, M.S.

The Statewide Head Injury Program (SHIP) is a new unit within the Massachusetts government created to develop a service delivery system that can meet the diverse needs of head injury survivors through all stages of recovery. This does not mean that SHIP provides the actual services that comprise a system of care, such as emergency medical services, rehabilitation management or vocational training. What the program does propose, however, is that there is a need for a lifelong case management model that spans all phases of recovery and community reintegration in order to facilitate the identification and use of resources in the most timely and cost effective manner. In those cases where resources do not exist or are not accessible to head injury survivors, SHIP must plan on the development of programs that will fill these gaps, balance out the system of care and provide options that do not presently exist. SHIP relies heavily on the private provider community for the planning, development and implementation of these programs while providing state funding and support as well as maintaining quality assurance.

Administered under the Independent Living Division of the Massachusetts Rehabilitation Commission, the SHIP

program developed as a result of 5 years of grass roots advocacy spearheaded by members and staff of the Massachusetts Chapter of the National Head Injury Foundation and the National Head Injury Foundation, whose headquarters are in Massachusetts. These efforts were supported and encouraged by Governor Michael Dukakis, Secretary Philip Johnston of the Executive Office of Human Services and Commissioner Elmer Bartels of the Massachusetts Rehabilitation Commission. The Massachusetts Legislature acted on administrative recommendations and approved the creation of SHIP in July 1985 with a \$2.1 million budget.

Philosophy

SHIP's mandate is to address the needs of Massachusetts residents, of any age, who have sustained a traumatic, externally caused head injury resulting in severe physical, cognitive and/or behavioral deficits. The program works in cooperation with other public and private human service agencies and organizations to ensure service provision to people with traumatic head injuries. SHIP proposes that this mission can best be met by providing four key service components: case management, technical assistance and training, program development, and purchase of ser-

vices. To ensure that SHIP provides coordinated, comprehensive, continuous, and cost effective services, the development and allocation of resources in each service component can not be addressed without consideration for the other key elements.

Case Management

There are two criteria for eligibility for case management services: a client must be a Massachusetts resident, and must have experienced an externally caused traumatic head injury that has resulted in significant cognitive, physical or behavioral impairments.

SHIP case management services are available to eligible head injury survivors throughout their lives. The intensity of involvement of our case management staff, however, will vary depending on two variables: whether or not the individual and family are capable and willing to take on case management responsibilities; and where the person is in his/her rehabilitation process. The role the SHIP case manager assumes, given these variables, is based on discussions with the client and family. SHIP staff members are sensitive to the reality that individual and family needs may change over time and, therefore, require a flexible approach to case management services.

The SHIP case management model provides individuals and families with one point of entry into the human service system. This is important, since, historically, no state agency was mandated or designated to provide services to this population. People were often forced to go from one state agency office to another in search for someone within the system who was knowledgeable about head injury and available services. SHIP's approach to service delivery is designed to circumvent these frustrating situations. SHIP case managers are expected to develop a certain level of expertise in the field of head injury. This is accomplished through ongoing clinical consultation and training from SHIP's neuropsychological consultants, attendance and participation in state-of-the-art conferences, and day-to-day experiences working with head injured people, family members and professionals representing a variety of disciplines. Staff is also responsible for becoming familiar with public and private resources in Massachusetts and across the country. Information and assistance can now be found through one central location.

Case managers work with clients on their caseloads to identify each person's specific needs in areas such as supervised housing, vocational or pre-vocational services, transportation, specialized therapies, respite care, and recreational/leisure time activities. Recent neuropsychological evaluations are used to assess each client's strengths and deficits, particularly as they relate to functional abilities and service needs. Once these needs are identified, the case manager attempts to locate existing services that will meet those needs.

Coincidentally, case managers will be exploring all of the fiscal resources the head injured person may tap into, such as private insurance, settlements, or public entitlement programs (*i.e.*, Medicaid, special education under

Massachusetts Chapter 766) in order to designate a clear funding source for the identified service needs. Case managers function as advocates on behalf of their clients, helping them to access whatever they are entitled to or eligible for, including other state agency programs or monies, (*i.e.*, Department of Mental Health, Vocational Rehabilitation). Interagency cooperation and coordination become critical, often demanding skillful negotiation by case managers. If no other funding is available, SHIP dollars may be accessed to purchase the necessary service(s).

SHIP case management services are available to eligible head injury survivors throughout their lives.

When a program/service and funding source are identified, case managers assist the client and family through the transitional process by facilitating coordination between the service provider and client and family. Once the head injured person is in the program and receiving services, the SHIP case manager becomes an active team member, monitoring and helping to guide the client's treatment plan in a way that is beneficial to the client and supportive of the provider. The goal is always to ensure that the client is receiving the services necessary to become more independent in the functional areas outlined in the treatment plan. When a head injured person is receiving multiple services from various agencies and providers, the SHIP case manager acts as the coordinator to prevent fragmentation and to promote ongoing communication and coordination amongst all the professionals providing services.

The role of the case manager also includes responsibility for ensuring that the individual, family and service pro-

viders remain focused on a pathway of skill development that leads to the discharge of that person to a more appropriate treatment setting. Discharge plans are a critical component of any treatment plan and, subsequently, the availability of an array of service options is critical to discharge planning. Case managers, therefore, must interface with those responsible for program development to share information on the programmatic needs of their clients as they move through the rehabilitation process. Their daily experiences with consumers, families and professionals is invaluable

to the process of establishing priorities for new program development efforts.

In addition to identifying new services that need to be created, case managers are actively involved in the cultivation and expansion of existing resources. When a vendor has been identified as interested in improving and/or expanding delivery of services to head injured people, case managers are responsible for determining whether it is more appropriate to provide technical assistance directly or coordinate inservice training through SHIP's consultant staff.

Finally, case managers are involved in sharing information about SHIP, the existence of public and private resources, and mechanisms for accessing those resources with people who call the program from all over the state and, on occasion, from various parts of the country. Case managers routinely refer head injury survivors, family members and significant others to the Massachusetts Chapter of the National Head Injury Foundation. This advocacy organization runs support groups

around the state that provide emotional support as well as educational information to those whose lives have been disrupted by this traumatic experience. The chapter reciprocates by referring their callers to SHIP for the purpose of application to the program and information and referral services.

Technical Assistance and Training

SHIP has been designated as a central point in the state system for not only information and referral, but for education and awareness as well. The program has consultants available to provide inservice training and technical assistance to families, providers, other professionals, and the general public. SHIP has three primary goals within this service component:

- Educate the public about traumatic head injury; its impact on the individual, family and community; the extensive service network necessary to meet the needs of this population; and prevention strategies that can have a significant effect on the incidence of this disability.
- Help professionals/providers gain the knowledge and skills necessary to provide quality services to people with head injuries, thereby broadening our network of services statewide.
- Assist in the early detection of head injury survivors through education of the medical community, including physicians, hospital staff and emergency room personnel.

Providing appropriate interventions closer to the time of injury can have a positive impact on the level of independence someone can attain and the quality of that person's life.

Program Development

SHIP's goal within this key service area is to encourage, facilitate and initiate the development of a comprehensive continuum of care in Massachusetts that can address the diverse needs of

The SHIP case management model provides individuals and families with one point of entry into the human service system.

people with traumatic head injuries. Our mandate is to accomplish this without duplicating the existing service delivery system. Therefore, when clinically appropriate, technical assistance and inservice training will be used to adapt an existing program so it may develop the capacity to better serve head injured clients. This applies to the public sector as well as the private sector and may involve joint program development ventures with other state agencies whose programs, interests, expertise, and/or mandates deem it appropriate.

Although expansion and use of existing resources may be cost effective, there are a number of reasons why new program development is the focal point of SHIP's efforts. First, the majority of services needed by head injured people beyond inpatient acute medical and rehabilitation hospital care are not available in Massachusetts. It is now necessary for SHIP to purchase rehabilitation treatment programs from facilities all over the country. It is our philosophy that head injured people should be able to access the services they need closer to their families, friends and community. Second, the delivery of services becomes more cost effective when the appropriate resources can be obtained at the point a client is ready to move on to a less restrictive environment or more appropriate program. The options must be developed to avoid extended stays in a more intensive and costly environment. Third, for people to benefit from rehabilitation they must be in an environment that builds upon their strengths and teaches them strategies to compensate for their deficits. When a program is no longer able to provide the structure in which this growth can occur, the client should be encouraged to move

on to a more clinically appropriate setting. If they are unable to make this move because of a lack of program options, they become "stuck" in a system unresponsive to their needs. Consequently, the valuable time in which they could continue to grow may be wasted.

SHIP's long-term goal of developing a service delivery system is driven by an independent living philosophy that encourages community reintegration while recognizing individualized needs for support and supervision. The programs to be created include, but are not limited to, intensive inpatient neurobehavioral and neuropsychiatric services, community-based housing, day activity and prevocational programs, vocational training models such as supported employment, recreation and leisure time activities, respite care, and other family support services.

Purchase of Services

The final service area that SHIP covers is the direct funding of existing services or programs. This can be authorized only after all other fiscal resources are explored and expended. The regulations for the program clearly state that SHIP is the "payee of last resort." To be eligible to tap these resources an individual must meet the following criteria: Massachusetts residency; carry a diagnosis of externally caused traumatic head injury resulting in significant impairment of behavioral, cognitive or physical functioning; require multiple rehabilitation services over an extended period of time; and have a reasonable expectation of benefiting from the services.

The identified pool of money available for this service has a limited purchasing capacity because of the level

of severity of the people we are serving and the high cost of existing programs. Only a small number of people are being served with these resources.

The development of a continuum of care which provides an array of service options will help to facilitate the flow of clients through appropriate treatment settings. If these programs are funded through other sources, *i.e.*, SHIP program development monies or medicaid, purchase of service dollars will be freed up for use by others in need.

In summary, rehabilitation and community reintegration cannot occur without the availability of a service delivery system that can meet the individualized and diverse needs of the traumatically head injured population. New programs must be developed as existing resources are cultivated. Individuals and families need the support of an advocate who can assist them in identifying and accessing the programmatic and fiscal resources specific to their needs. SHIP's comprehensive approach to serving head injury survivors provides all of these key elements: program development, technical assistance, case management, and purchase of service. SHIP's service components work together to benefit the client, family and community. Each can function independently, but it is our belief that together they offer a more effective and efficient system of care.

Implementation and Operation

Since SHIP's inception, the program has received an average of 20-25 new referrals each month. A total of more than 600 referrals were made between July 1, 1985, and July 1, 1987. According to the Massachusetts Chapter of the National Head Injury Foundation, approximately 12,000 persons suffer a head injury each year in Massachusetts. Ten percent, or 1,200, of these are injured severely enough to require long-term or life-long rehabilitation and care.

Clearly, the numbers of referrals to the SHIP program to date do not reflect the enormity of the problem and need statewide.

The people applying for services through SHIP appear to represent a skewed part of the population of head injured people. Many of the clients SHIP has been actively involved with are many years post injury, without services and dependent on their family for their care; do not have any financial resources available to them except public assistance, *i.e.* SSI, SSDI, Medicaid, and Medicare; are at risk and seen as a threat to themselves or others, *i.e.* aggressive or self-abusive; have pre-morbid and/or

active substance abuse problems; have exhibited behaviors (because of their injury) leading to involvement with the correctional system; and have psychiatric disorders necessitating acute hospitalizations and crisis intervention strategies.

This group does not appear representative either in terms of numbers of personal characteristics. One reason is that SHIP is not receiving applications from head injury survivors who have recently been injured and are early on in their rehabilitation process. It is anticipated that this distribution will start to even out as SHIP begins to do more extensive outreach to acute care and rehabilitation hospital settings. These liaisons have not yet been formally established and both the medical community and rehabilitation professionals are still unfamiliar with the concept of SHIP and how it might benefit head injured people and their families.

An additional factor that has affected who, when and if someone is referred to SHIP is the ex-

istence of a waiting list. Many people are hesitant to apply to the program because they will not immediately benefit by receiving a service. A month after SHIP opened its doors, it was necessary to institute an order of selection system. The need for services far exceeded the availability of resources.

The order of selection sets forth the priority categories in which eligible clients will receive paid SHIP services. The priority categories are as follows:

- Eligible clients shall be classified as Priority Category I if they are considered a threat to themselves or others and require a 24 hour a day structured supervised living environment in order

Since SHIP's inception, the program has received an average of 20-25 new referrals each month.

to gain appropriate behavior control.

- Eligible clients shall be classified as Priority II if they require extensive comprehensive rehabilitation services to function more independently in the community, but do not meet the criteria specified for Priority I.

- Eligible clients shall be classified as Priority III if they require ongoing rehabilitation services to maintain an appropriate level of functioning within the community, but do not meet the criteria specified for Priority I or II.

When limited funding is available, as now, a waiting list is maintained with eligible clients served in order by current priority status and date of receipt of their application. Priority I clients are considered for services first, even though their ability to use funds is often jeopardized by the lack of program options available for people who exhibit at risk behaviors. The limited resources and ability to place people directly into programs is discouraging to people considering to apply.

The length of our waiting list and high
(Continued on page 28.)

Counselor Directed Work Evaluation

Roger Koenke
Thomas Wichert

For the past 6 years, the Career Development Center of Wisconsin's Division of Vocational Rehabilitation (DVR) has provided high vocational potential clients with short-term standard vocational evaluations. These evaluations are similar to those outlined by Botterbusch (1983). People served by the center include industrially injured persons, displaced workers and other DVR clients.

In looking for an even shorter and less expensive evaluation procedure that retained high quality, the authors decided that it was necessary to use one data base system or coding system to pull together evaluation scores, test results, career exploration material, and career decision making activities. As a result the authors developed the Counselor Directed Work Evaluation (CDWE) which has enabled the same staff to more than triple the number of clients it can serve.

Explanation of Services

CDWE is a series of five services that are requested directly by the counselor. The counselor can request the services separately, in total or in any combination. This allows the counselor to be an active participant in the evaluation process and exert some control over the type of information desired. Background paperwork is not required and an initial interview is not conducted. The five services in the order found

most conducive to making a career decision follow:

Group Academic Testing includes the Nelson-Denny Reading Test, spelling and math from the Wide Range Achievement Test-Revised (WRAT-R) and the Career Occupational Preference System (COPS) interest inventory. Tests are administered on a group basis, scored and placed in a prepared report form by clerical staff. Total time required for a client to complete the group academic testing is 2 hours.

General Aptitude Test Battery (GATB) was selected for its emphasis on employment and work skills. The finger and manual dexterity boards and the USES Interest Inventory are administered by the evaluation lab supervisor. The results are presented in a check list format using the occupational aptitude patterns and the Guide to Occupational Exploration work groups. A worker trait profile comparison is done using the client's GATB scores, group testing and career choice. The worker trait profile is defined as the requirements made on the worker in terms of aptitudes, general educational development, vocational preparation, and physical demands. Total client time is about 2½ hours.

Job Satisfaction examines work values and indirect measures of work satisfaction. The number of untimed tests used is proportional to the level of the client's vocational confusion. A

maximum of eight different untimed tests can be used. Some of the tests include the Myers-Briggs Type Indicator, Taylor-Johnson Temperament Analysis Profile, Survey of Interpersonal Values, and the Orientation Inventory. Tests are administered and results interpreted to the client. The specially prepared pages used in interpreting the test results are forwarded to the counselor, but no narrative report is written. Crosswalks to the Guide for Occupational Exploration (GOE) work groups and report forms have been developed to aid in the ease of interpretation and allow clients to better review tests results. Total client time is 2-3 hours, with an additional hour for interpretation.

Job Goals are a series of workbooks developed by evaluator Thomas Wichert to enable clients to use printed occupational information, including the GOE, the Dictionary of Occupational Titles (DOT), the Occupational Outlook Handbook (OOH), and the Wisconsin Career Information System to develop a career choice. The workbooks also include a section for exploring choices based on the physical demands of specific occupations. Evaluator time is limited to an initial explanation of the process and a closing session. Total client time is 2-6 hours.

Ability Information System (AIS) is a computerized job matching system using the Dictionary of Occupational Titles as a data base. The AIS also in-

cludes a data base of potential employers categorized by Standard Industrial Codes. The system is menu driven and accessed through a telephone and modem. Several questionnaires have been designed and are being used to allow counselors and clients direct access. About 5 to 20 minutes of computer time is used to generate a printout from a questionnaire.

Dynamics, Problems and Solutions

CDWE provides a unique nontraditional system of solving the problems the authors encountered in establishing an integrated, high quality, lower cost work evaluation.

Cost effectiveness is enhanced by giving the academic testing and GATB in groups. Clerical and supervisory staff positions are fully used, freeing some evaluator time. The GATB is scored by a computerized test scoring system, which further increases effectiveness. Check lists, pre-printed forms and work sheets are the primary reporting format. An AIS questionnaire asking for physical restrictions can be filled out by a client following the group GATB testing. This procedure allows for an AIS transferable skill search to be conducted using academic skills, functional capacities and physical capabilities. Client time for this series of services is about 4 hours. Professional time is split among the clerical, supervisory, evaluator, and counseling staff.

The vast majority of evaluation instruments (aptitude testing, interest tests, work values assessment, and personality tests) available for work evaluations use different occupational classifications for interpreting results. Cross referencing between evaluation instruments and occupational information is difficult for the evaluator, and especially difficult for the client. In developing the CDWE, the authors used the data base or coding system used by the GATB, GOE, DOT, and OOH.

Crosswalks to this system were used when available and developed as needed. Special forms were created to report all test results in a simple format easily understood by clients and counselors.

Effectiveness

The DVR Career Development Center continues to provide the traditional work evaluation while also providing the new Counselor Directed Work Evaluation as an alternative service for DVR counselors and clients. Two means of measuring the success of the CDWE are:

- Comparing the total number of clients served with the same staff offering only the traditional work evaluation

Many of those people for whom a career goal remained the same have verbalized greater confidence in their choice.

with the total number of clients served by offering both the traditional and the Counselor Directed Work Evaluation.

- Comparing the number of DVR counselors that referred clients for the traditional Work Evaluation with the number of counselors that refer clients for one or more Counselor Directed Work Evaluation services.

A traditional work evaluation was provided to 339 clients during the 1983-1984 fiscal year, which was the last year before the introduction of CDWE. With this same staff, a total of 1,171 clients were served during the last fiscal year; 318 of the clients were provided a traditional work evaluation and 853 were served through CDWE. Total capacity improved from serving 339 clients a year to serving 1,171 clients — a 345 percent increase. This increase is partly due to some clients being referred for only one or two of the five possible CDWE services. A second factor that entered into these results is that the

traditional work evaluation offered by the DVR Evaluation Lab was shortened one day, with the average work evaluation going from 3½ days to 2½ days between the base year and the comparison year. Thus, more staff time to serve clients became available. It appears obvious that the vast majority of the more than tripled increase is due to the structure, availability and usage of CDWE.

Using the second criteria for measuring the success of CDWE, 79.4 percent of the 39 VR counselors in the area referred clients for the traditional work evaluation during this past fiscal year. But surprisingly, 92.5 percent of these same VR counselors referred clients for

one or more CDWE services. This statistic suggests a wide spread recognition of the value of the CDWE services among the Milwaukee region DVR counselors.

Response from clients has also been favorable. Over 95 percent of the clients that start the GATB testing complete the remainder of the CDWE. It is interesting to note that over 50 percent of the career goals given at the time of the GATB change due to the increase of information obtained through the job satisfaction battery and workbooks. This would indicate that the services are providing information not previously available to the clients. Many of those people for whom a career goal remained the same have verbalized greater confidence in their choice. Another frequent comment expressed by clients is regret that they did not have access to this information in high school or more quickly following the onset of disability.

(Continued on page 32.)

Public Forums

or the benefits of developing a constituency

Diana Koreski
Shirley Smith
John Olson

In 1982, after multiple federal and state audits, the Washington Commission for the Blind was facing a crucial Sunset Review. Over 250 issues had been raised by auditors ranging from program performance to management control. The agency's public credibility was at an all time low. The major objective of a Sunset Review, conducted by the State Legislative Auditor, is to recommend to the Legislature whether an agency should be terminated, or continue to exist in some form.

Faced with the problem of redirecting the agency's energy into productive rehabilitation efforts, improving staff morale and increasing the department's credibility among its constituency of blind persons, Paul Dziedzic, the newly named director, felt he needed more information on the real and perceived problems of the Commission, so he started listening. He listened to blind people in the community, he listened to staff, and he listened to legislators. He also listened to advocacy groups, clients, consumer groups, the regional RSA staff, other state agency staff, and the employee's union. Identification of issues facing the agency and a variety of perceptions of how to address these issues began to emerge. His philosophy of how to

manage the agency and build consensus in the community began to emerge as well.

The basic kernels of his philosophy are:

- Listening empowers the constituency and equalizes the agency director and the community, thus creating a partnership effect.
- In order to achieve agency credibility, people have to feel their input has had some impact.
- Issues identified in listening to people need to be addressed in agency action or policy.
- The agency has to develop a mechanism to provide feedback, giving credit to the constituency for their input.

The first step in this process was to develop a mailing list of interested people in the community. A "Friends of the Commission" memorandum was sent out regularly, sometimes as often as weekly, outlining issues facing the Commission and asking for identification of the barriers which were preventing the agency from accomplishing its mission. Agency staff were also queried to gain perspective on internal management issues.

Concurrently, the director held com-

munity meetings to gather additional information. All persons on the mailing list for "Friends' memos" were invited to meetings in their area. This was an opportunity to find out what they had to say about the Commission. People attending these meetings offered criticism and suggestions ranging from angry diatribe to reasoned suggestions.

A draft, "Management Enhancement Plan," was developed as a result of the multitude of comments received and synthesized by the Commission's administrative staff. The plan included objectives for developing rules, regulations and policies, as well as other issues such as identifying training needs of staff, allocating resources and improving service delivery.

The progress of the agency in beginning to organize itself and improve its performance was reported regularly in "Friends of the Commission" memorandums. The director spent considerable time with presidents of various organizations and influential leaders in the blind community, getting constant feedback and reactions to proposed Commission policies and activities.

A full year was spent wooing the community and gathering their confidence and support. At this point, the Commission was given a new lease on

life. The 1983 Sunset Report resulted in a complete rewriting of the agency statutes and the formation of the Department of Services for the Blind, but the Legislature requested another Sunset Review in 4 years. The agency had a heavy workload ahead of it trying to achieve its Management Enhancement Plan, but now had the time to consolidate its activities and focus its energies.

For the first time in many years, there was the beginning of unanimity for support of the agency in the blind community. The success of the community meetings and "Friends of the Department" memorandums (Friends' Memos) could be measured by the consensus that was beginning to grow among community leaders, staff and advocates. Given the success of this process, the director began to institutionalize this activity by using it as a mechanism to develop agency policy.

In order to keep the various constituencies advised of agency activities, it was decided that a newsletter should be sent out at least every other month. Regular input from the community was needed to assure that client services were being appropriately delivered. The community meetings were analogous to a thermometer, in that they checked the reactions of the community to department activity and helped to determine what areas needed further improvement. Meetings were held approximately every 4 months in 10 communities throughout the state.

However, the entire process of policy development used by the department is more complex and involves a variety of different audiences, both internal and external.

The full planning process is a reaction to the issues raised in community meetings. Policy or resource needs issues can be raised from any level, but usually come from the Agency Advisory Coun-

cil or Executive Team. The Washington Department of Services for the Blind has an advisory council appointed by the governor to provide input to policy and programmatic decisions. The Executive Team is composed of the director, deputy director and the executive assistant.

It is easiest to explain the process by describing how a policy on adaptive skills assessment and training came into being. The issue was first articulated by the Advisory Council. They felt that every blind person coming to the agency for services should be provided a prevocational skills assessment to determine his/her level of adaptive skills for living independently.

The agency's public credibility was at an all time low.

With this guidance, the director set up a task force composed of counselors, supervisors and administrative staff in the agency to develop draft policies and procedures. Their work was reviewed by the Executive Team to determine if the general content met the direction provided by the Advisory Council. The Management Team, which includes all program managers, then reviewed the policy for programmatic content, consistency and appropriateness.

During the developmental stages, "Friends' Memos" were sent out, informing people of the issue, describing the general policy direction being taken and requesting comments and input for inclusion in the first drafts. After the task force had compiled a draft which the director felt was on target, he arranged a series of community meetings for public input. The 10 communities for the public forums were selected, sites were identified and times set. All 10 meetings were held in a 3- to 4-week timeframe. The sites were accessible

community facilities. While most communities selected were representative of large population centers, rural areas were also included. The sites selected changed each time there was a public meeting to assure a good cross representation or to reflect a special interest or activity in the blind community.

The community meetings were publicized through "Friends' Memos," which currently has a mailing list of 1,400 people. Included in the announcement were copies of the policies and procedures under consideration and other descriptive information which would be discussed at the meeting.

The background information was reviewed at the meeting, and comments

and suggestions were encouraged. Agency staff from the area also participated, creating a team atmosphere. Staff were asked for their input to the policy in a separate meeting in which additional discussion and brainstorming occurred. Staff input for similar issues could be gathered during an all staff meeting or a special meeting limited to the appropriate program staff.

At this point in the process, the chairperson of the task force then compiled all the comments and made appropriate revisions to the draft policy. The final draft was reviewed and edited by the director and submitted to the Advisory Council. The Advisory Council recommended approval to the director, who made the final policy decision.

The policy and planning cycle is a never-ending cycle. It is continuous activity with more than one policy issue under consideration at a time. The constituency is free to comment on agency performance or community needs at any community meeting.

(Continued on page 30.)

Obfuscation is a term that defines the art of utilization of many big words on the
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Language Used or Used Language?

Ron Bourgea

Superabundance. Sue these words for nonsupport.

- A new wrinkle has come to my attention in the use of tandem, nonfunctional phrases. In it, the author assigns to one term a narrow definition compared to the more general definition of the same term in the second half of the phrase. Here are some examples: *aids* and *devices* (An aid is defined as a "helping device" whereas a device is the more general term.); *operate* and *use* (in relation to the aids and devices previously mentioned) (A device that is operated is used by the person doing the operating. The word "operate" more specifically goes with mechanical use, whereas the more general term may be used in other ways as well as with a mechanical device.)

- "... a range of *adaptations* or *adjustments* . . ." "Hooray," said I as I read of this "range" without an attendant "wide" to go with it. But then came the "adaptation" which is "a change in structure, function or form that produces better adjustment." Win one; lose one!

Then the author (knowing my "wide-ranging" mind, of course) drops "a *full* range" on me! Ah, woe! Ah, trouble! A "range," we are told by *Webster's*, is "the limits of possible variations of amount, degree, etc." Once learned, I

could not feel fully at home on that range.

- A friend sent me this note: "Wouldn't you know a project titled 'Demonstrations of Vocational Rehabilitation Services for Culturally Disadvantaged Emotionally Disturbed Patients Featuring the Use of Indiginous Paraprofessionals' would have sentences like: 'Socio-psychiatric rehabilitation is characterized by the use of multiple, comprehensive, coordinated, interdisciplinary interventions directed toward aiding individuals to achieve productive social, psychiatric, physical, educational and vocational roles, within the limit of their capacities and potentialities, with recognition of their disabilities.' "

- The bureaucratic way to say: "twinkle, twinkle little star,/how I wonder what you are,/up above the world so high,/like a diamond in the sky." is "scintillate, scintillate, globule orific,/fain would I know of your nature specific./Loftily poised in ether capricious,/strongly resembling a gem carbonaceous."

Elongationitisism. The simple form is preferred.

After a short span of time—shortly; on the basis of—from, through; point of view—perspective; with the advent of—with; a large number of people—

many people; by the end of 4 weeks—in 4 weeks; by the end of the week—by week's end.

Careful writing. Simple writing does not necessarily mean clear writing.

Word placement. The following sentence fragment was submitted for publication: "... because these are *only the* tools available to the actor to succeed or fail in presenting 'a person' to the audience." This is how the editor changed the entire meaning by rearranging but one word: "... because these are the only tools available. . . "

Bureaucratic Bias (*Good words that become vogue and, consequently, vague.*) **Interested.** "The meeting was attended by counselors, supervisors and interested business community members." We must accept as a given that the counselors and supervisors were also "interested," so why are business members highlighted with this adjective that is already understood? Beware of the word "interested" used as an adjective; it is most often just one more example of the social scientist's penchant for appending a positive word to a positive word to negate the whole—sort of the antithesis of the double negative, the double positive. But, in truth, the double negative is often more interesting: don't never use interested in the interest of reader interest!

- From Edwin Newman's *Strictly Speaking*: "Business puts enormous pressure on language as most of us have known it. Under this pressure, triple and quadruple phrases come into being—high retention characteristics, process knowledge rate development, antidilutive common stock equivalents. Under this pressure also, adjectives become adverbs; nouns become adjectives; prepositions disappear; compounds abound."

Pastiche.

- A dip into the muddy waters of an article was enough to inundate me beneath a wave of tandem, nonfunc-

tional phrases; to wit, efficient and effective (used twice), worth and dignity, skills and functions, injury and trauma. In addition, the article had its share of nonfunctional phrases: "to help plan *appropriate* intervention *strategies*," "much of the *available* research supports the . . . position," and "collecting, analyzing and evaluating *relevant* information about the client." In the first place, I hardly think that a counselor would plan inappropriate interventions (incidentally, an intervention is a strategy). In the second place, a position could hardly be supported by unavailable research. And in the third place, would a counselor collect anything but "relevant" information about a client?

- Three separate visits. To visit means "to call upon" or "to go to see" someone. "Three visits" means "three separate visits." The separation is intrinsic.

- An *Associated Press* report from Leesville, Louisiana, presented a number of excuses given by parents for their children missing school. They ranged from medical reasons, such as, "Mary could not come to school today because she was bother by very close veins," to utter confusion when a mother asked that Fred be "ackused" from school "on Jan. 28, 29, 30, 31, 32, and 33." Then there was the physiological reason: "Please excuse Mary from Jim yesterday. She is administering." And finally, there was the suggestive side: "Please excuse Mary. She has been sick and under the doctor" and "Please excuse Jane from being absent yesterday. She was in bed with gramps."

Mr. Bourgea is former editor, *American Rehabilitation*.

Disabled Adults Need Family and Vocational Support for Job Success, Temple University Study Finds

Disabled adults would have greater success in the job market if their families and vocational centers work together to support their employment efforts, according to a 3-year Temple University study conducted in vocational centers in the U.S. and Israel.

"We found that family support is vital in helping adults with handicaps find a job. Vocational centers need to involve the family in the rehabilitation process to become more effective in job placement," said Edward Newman, Ph.D., principal investigator of the project and director of Temple's Developmental Disabilities Center.

Vocational rehabilitation centers in Philadelphia, New York and in the Haifa area of northern Israel were studied with the collaboration of Haifa University researchers.

The study recommended that centers in both countries strike a balance between what is considered good for the clients and the special needs of the individual and the family. Centers should clarify their goals by establishing a dialogue among disabled persons and their families, policy makers and professional staff. These goals should include the integration of the family and its needs into the vocational rehabilitation process.

"We found that the family is often an untapped wealth of psychological support for adults with handicaps. When the family and the centers work together, we can expect to see a real increase in job success and satisfaction for handicapped persons.

"Vocational rehabilitation centers in both countries can also improve their services by researching the job market

in their area, providing suitable training and placing the client in a job that fits his or her vocational interest, rather than only aptitude," Dr. Newman said.

Temple's Developmental Disabilities Center received a \$238,000 contract from the U.S. Department of Labor for the study, which is entitled *Barriers to Employment of Persons with Handicaps*. The study found that similar barriers to employment exist in both countries.

Dr. Newman's associates in the study were Dr. Diane N. Bryen, professor of special education who served as project director, and Dr. Simon Hakim, professor of economics, who was economics consultant.

The researchers found cultural differences reflected in the distinct views of vocational rehabilitation experts of each country. "Israeli experts emphasize quality of life and job satisfaction as important outcomes of rehabilitation while American experts stress an increase in income and competitive employment," explained Dr. Newman.

Dr. Newman and his Temple colleagues presented the study to the Minister of Labor and Social Affairs, Moshe Katzav, at a Washington reception hosted by the Isarel Embassy November 10, following a briefing with top officials of the Department of Labor.



TOPIC OF STATE

Illinois, Iowa Form Joint Center for Independent Living

As many as 25,000 people with severe disabilities living in the Quad Cities area (Davenport and Bettendorf, Iowa; Moline and Rock Island, Illinois) will have increased opportunities for participation in their community and greater independence with the support of the region's new center for independent living.

With the official start last October of the new Illinois-Iowa Independent Living Center (IIILC), the Quad Cities area became one of the first bi-state metropolitan regions in the nation to establish a center that will serve two states.

The new center is the result of public comments made at four public hearings held in the local area and a 1986 United Cerebral Palsy of Mississippi Valley survey which found that community resources familiar to people with disabilities in other Illinois communities were not commonly available in the Quad Cities area. The report indicated that more than half of the region's citizens with severe disabilities are not working. High unemployment among this group can be attributed to the lack of adequate transportation and accessible housing—two community issues the IIILC plans to address.

The Quad Cities organization joins a national network of nonresidential centers for independent living which have developed during the past decade as part of an independent living movement among people with disabilities. Centers for independent living (CIL's) are community-based programs that provide peer counseling, skills training

and advocacy among people with disabilities, while performing a variety of informational and referral services. Centers also work within their local communities to develop programs, such as accessible housing or public transportation, that lead to increased opportunities for integration of people with disabilities.

The first Illinois CIL was established in 1979. Since that time, 10 others have sprung up throughout the state, annually providing services to 4,100 people with disabilities.

The IIILC is Iowa's first community-based independent living center.

Ohio Establishes MR/DD Prevention Plan

A mental retardation/developmental disabilities plan is being developed by Ohio that, when adopted, will identify available prevention programs and gaps in services.

The effort is the result of cooperation among 22 government agencies, advocacy groups and service providers brought together by the Ohio Department of Mental Retardation and Developmental Disabilities. Known as the MR/DD Prevention Coalition, the group is co-chaired by Betty Macintosh, chief of the Office of Early Childhood and School-Age Services, and Annette Hank, MR/DD's prevention coordinator.

Over the next year, the coalition will discuss four major goals:

- To identify availability of programs and gaps in the Ohio services and to define and describe elements of an effective prevention plan for the state;
- To promote the value and need for such programs in Ohio;
- To identify funding resources, legislation and rules for prevention services; and
- To write a statewide prevention

plan to implement the mission, goals and objectives of the group.

The MR/DD Prevention Coalition was established in response to a call from the President's Committee on Mental Retardation for states to develop such plans.

Virginia 5-Year Plan to Reduce Unemployment Among Disabled People

Of the estimated 420,000 disabled Virginians of work age, only one-third is employed, according to information contained in a Department of Rehabilitative Services' (DRS) Preliminary Long-Range Plan developed last December.

The plan, which is the proposed guideline for the provision of vocational rehabilitation and independent living services in Virginia during the next 5 years, is open for discussion by DRS. At five simultaneous public hearings held January 20 in Abingdon, Arlington, Fishersville, Norfolk, and Richmond, citizens had the opportunity to express their concerns and ideas relative to whom the agency should serve and how the services should be provided.

The plan, which officials say is needed to ensure the availability of rehabilitation services, states six specific long-range goals:

- Assist persons with disabilities to secure and maintain employment.
- Assist persons with disabilities to live independently.
- Assist persons with disabilities in securing financial support.
- Assist communities to enhance the independence and employment of persons with disabilities.
- Increase DRS effectiveness to better meet the needs of persons with disabilities.
- Promote the rights of persons with disabilities.

NEWS, NOTES, ANNOUNCEMENTS

PVA Awards Grant for Spinal Cord Study

The Paralyzed Veterans of America (PVA) Spinal Cord Research Foundation has awarded a grant to Montreal General Hospital Research Institute in Montreal, Quebec, for research in the field of spinal cord regeneration.

The continuing research project, entitled "Nerve Fiber Growth in Culture on CNS and PNS Tissue," is designed to examine the effects of certain antibodies, synthetic peptides and proteins on nerve fiber growth in the peripheral and central nervous system. The project is under the direction of Salvatore Carbonetto, Ph.D.

Gallaudet: Best in East

College and university presidents in a nationwide survey have named Gallaudet University the best liberal arts college in the East, according to results published in the October 26, 1987, *U.S. News & World Report*.

The magazine's third biennial survey of American higher education includes winners in nine categories. Among the 83 schools in the eastern liberal arts colleges category, Gallaudet was selected by more than half of the presidents who responded. Marymount College in New York was second and Albert Magnus College in Connecticut came in third.

U.S. News & World Report asked 1,329 college and university presidents to select 10 schools, classified in the same category as their own, which provide the best undergraduate education. A total of 764 presidents responded.

In making their selections, the presidents were requested to consider cohesiveness of curriculum, quality of

teaching, relationship between faculty and students, and the atmosphere of learning fostered by the campus.

As the winner in its category, Gallaudet was cited for the sense of self confidence it instills in its undergraduates.

In the last *U.S. News* survey, conducted in 1985, Gallaudet was chosen third in its class of smaller comprehensive institutions. In 1983, the university tied for fifth place in the category of regional liberal arts colleges.

Disability Prevention Conference Scheduled

The First National Conference on the Prevention of Disabilities is scheduled May 19-20 at the Schine Center at Syracuse University. For more information on the conference, entitled "The Prevention of Physical and Mental Disabilities: Federal, State, and Community Programs and Practices," contact the Office of Professional Development, 250 Huntington Hall, Syracuse, New York 13244-2340. Telephone: (315) 423-4696.

NISH Schedules 1988 National Conference

National Industries for the Severely Handicapped (NISH) will have its 1988 National Conference April 17-20 in Orlando, Florida.

For further information, write or telephone: 1988 NISH National Conference, 2235 Cedar Lane, Vienna, Virginia 22180, (703) 560-6800 or TDD, (703) 560-6512.

Spinal Cord Convention Scheduled August 11-13

The National Spinal Cord Injury Association will host its 40th Anniversary Annual Convention in Denver August 11-13.

The 3-day convention will cover a range of topics, including financial concerns in the delivery of comprehensive rehabilitative care, the consumer's quality of life, and medical and technological advances.

Over 50 display booths will feature the latest in computer, transportation and adaptive equipment as well as personal and health care services for people with spinal cord injuries.

For more information, contact the National Spinal Cord Injury Association, 600 West Cummings Park, Woburn, Massachusetts 01801. Telephone: (617) 935-2722.

Dallas Conference Set for May 17-20.

The Association of Rehabilitation Programs in Data Processing will hold its 10th Annual Conference in Dallas May 17-20.

The conference will feature a series of workshops and seminars on a variety of subjects associated with data processing education and employment for people with disabilities. General topics will include computer technology and opportunities for handicapped people, recruitment and selection of applicants, instructional techniques, areas for business involvement, job placement, screening and training blind students.

For information and registration materials, contact: Ms. Leslie Skibell, El Centro College, Dallas, Texas 75202. Telephone: (214) 746-2412.

PUBLICATIONS & FILMS

The Art of Play. An Adult's Guide to Reclaiming Imagination and Spontaneity. Third Edition. Adam Blatner, M.D., and Allee Blatner. Human Sciences Press, Inc., 72 Fifth Avenue, New York, New York 10011-8004. 203 pages. Hardcover, \$26.95; softcover, \$12.95.

The authors believe that imaginative role playing is a natural process that can be used in adulthood to its applications in educational and therapeutic contexts. They present a systematic method for developing skills in improvisational play and discuss the benefits and psychodynamics of this innate channel of vitality. The commonly held beliefs that inhibit the playful impulse are critically examined.

Therapeutic Recreation for Long-Term Care Facilities. Fred S. Greenblatt, M.S., C.T.R.S. Human Sciences Press, Inc., 72 Fifth Avenue, New York, New York 10011-8004. 198 pages. Hardcover, \$26.95.

The author identifies and analyzes issues and concerns affecting the recreation needs of the long-term care client and nursing home patient. The essential elements of program design are examined. Treatment modalities, activity adaptation, behavioral factors, and social interactive structures are all reviewed.

The Body Silent. Robert F. Murphy. Henry Holt and Company, Inc., 521 Fifth Avenue, New York, New York 10175. 242 pages. Hardcover, \$17.95.

The author was completing his term as chairman of the Anthropology Department at Columbia University when he felt the first symptom of a malady that would ultimately take him

on an odyssey stranger than any field trip he had experienced in the southern Sahara or the Amazon.

In this book, a deeply personal narrative, the author examines the psychological and social effects of a tumor of the spinal cord that began as barely noticeable muscle spasms and within a decade had developed into a still-deepening quadriplegia. He also explores the universe of public fears, myths and misunderstandings about disability and the damage they inflict upon physically impaired people.

The Job Training Partnership Act. A report by the National Commission for Employment Policy. September 1987. National Commission for Employment Policy, 1522 K Street, N.W., Suite 300, Washington, D.C. 20005. Free.

This is the Commission's assessment of the Job Training Partnership Act (JTPA), a review of findings from many sources, including nationwide program evaluations; Commission site visits, meetings, hearings, and sponsored research; and management information published by the U.S. Department of Labor. This report complies with the Commission's ongoing mandate in section 473(3) of the Act "to examine and evaluate the effectiveness of federally assisted employment and training programs (including programs assisted under this Act)." It also contains recommendations for strengthening JTPA, which in the Commission's judgment is effectively serving thousands of economically disadvantaged and displaced workers, but could become an even more effective instrument for assisting these groups, particularly those with special needs.

Program Evaluation: A Self-Study Manual. Christopher Smith and Goodwill Industries of America, Inc. Materials Development Center, School of Education and Human Services, University of Wisconsin-Stout, Menomonie, Wisconsin. 216 pages. Softcover, \$23.75.

The focus on this manual is on the development of a practical and flexible data collection system to support facility program evaluation outcome and research models. This publication provides 10 self-study units that present information on program evaluation. It is designed to help mid and upper level human service managers make practical choices regarding the program evaluations conducted in their organizations. The self-study format includes a self-test and at least one learning exercise for each of the 10 units.

Vocational Assessment and Evaluation Systems: A Comparison. Karl F. Botterbusch, Ph.D. Materials Development Center, School of Education and Human Services, University of Wisconsin-Stout, Menomonie, Wisconsin. 192 pages. Softcover, \$22.75.

This publication is the fifth in a series designed to provide vocational evaluators, special educators, vocational educators, manpower specialists, corrections personnel, and private rehabilitation practitioners with accurate and detailed information on widely available vocational evaluations and assessment systems.

Congress and Health: An Introduction to the Legislative Process and its Key Participants. Seventh Edition. One Hundredth Congress. Government Relations Handbook Series. National Health Council, Inc. 622 Third Avenue, New York, New York 10017-6765. 96 pages. Softcover, \$11.00 (\$9.00 for Council members).

This handbook provides comprehen-

sive information on all of the major health committees, on all of the members of Congress and their health aides who are involved with health issues, and how a bill becomes law. It also includes a detailed alphabetical directory of all 535 members of the 100th Congress and their health staff.

Psychosocial Rehabilitation Journal. Volume XI, Number 2. October 1987. A quarterly journal of the International Association of Psychosocial Rehabilitation Services and the Department of Rehabilitation Counseling, Sargent College of Allied Health Professions, Boston University. Annual subscriptions: individual rate, \$29; institutional rate, \$55; foreign individual rate, \$36; foreign institutional rate, \$60; full-time student rate, \$22.

This issue focuses on supported employment for people with severe mental illness and features a guest editorial by Madeleine Will, Assistant Secretary, Office of Special Education and Rehabilitative Services.

The Nonrestrictive Environment: on Community Integration for People with the Most Severe Disabilities. Steven J. Taylor, Julie Racino, James A. Knoll, and Zana Lutfiyya. Human Policy Press, P.O. Box 127 - University Station, Syracuse, New York 13210.

This book was produced as part of a federally funded project which has a mandate to explore the best practices for supporting people with severe disabilities in the community. It provides parents, advocates, administrators, consultants, and service providers with an overview of the current best practices in community-based services.

SUICIDE: Clinical and Epidemiological Studies. Brian Barraclough, M.D., with Jennifer Hughes. Methuen, Inc., 29 West 35th Street, New York, New York 10001. 188 pages. Hardcover, \$32.50.

Work carried out during the author's membership in the Medical Research Council's Clinical Psychiatric Unit, Grayling Hospital, Chichester, is assembled in this book. The intention of the enquiries was to apply the scientific method of systematic observation and hypotheses testing to phenomena related to suicide with the aims of improving knowledge about the possibilities for preventing suicide and increasing knowledge about its causes.

Transitioning Persons with Moderate and Severe Disabilities from School to Adulthood: What Makes It Work? Jill Wheeler. Materials Development Center, Stout Vocational Rehabilitation Institute, School of Education and Human Resources, University of Wisconsin-Stout, Menomonie, Wisconsin 54751. 88 pages. Softcover, \$10.75. ISBN: 0-916671-80-1.

Ms. Wheeler, a special educator, vocational trainer and supported employment consultant with the Wisconsin Division of Vocational Rehabilitation, examines the laws and barriers that have created the current patchwork of transitioning programs. She discusses how a firm basis for transition can and must be built and outlines the step-by-step planning that leads to effective transitions from school to competitive employment.

Gentle Teaching: A Non-Aversive Approach to Helping Persons with Mental Retardation. John J. McGee, Ph.D.; Frank J. Menolascino, M.D.; Daniel C. Hobbs, M.A.; Paul E. Menousek, Ph.D. Human Sciences Press, 72 Fifth Avenue, New York, New York 10011-8004. 192 pages. Hardcover, \$24.95.

Gentle teaching is an option to the punishment practices that are commonly used in the United States and many other countries. This text offers a departure from traditional approaches to the

care and teaching of people with mental retardation and behavioral problems by presenting a practical method of teaching bonding and interdependence to people with these needs. It critically analyzes current punishment-based practices and presents a value base and methodology focused on nonpunitive strategies to serve persons with aggressive, self-injurious and self-stimulatory behaviors. These strategies are examined from the perspective of family settings, schools, group homes, institutions, and work.

Exceptional Individuals. A special issue of *Journal of Career Development*. Donn E. Brolin, editor. Human Sciences Press, Inc. 72 Fifth Avenue, New York, New York 10011-8004. 73 pages. Softcover, \$9.95.

Prepared by members of the Midwest Consortium on Career Development for Special Populations, these articles outline successful methods to enhance the career development of youth with a variety of disabilities. Included is material on career development for youth with autism; the attitudes, training and involvement of professional educators with handicapped learners; association between handicapped students' self-ratings and teacher ratings; factors influencing students' success in post-secondary vocational education programs; parents' role in career development and vocational services for disabled youth; and the importance of life-centered career education.

Audio Cassettes of AR

Taped copies of *American Rehabilitation* are available to blind and physically handicapped persons through local regional offices under the National Library Service for the Blind and Physically Handicapped. Contact your public library for the location of the regional library which serves your state.

Caseloads

(Continued from page 5.)

tions were received from 885,737 people, just before the full impact of the Rehabilitation Act was felt. Declines in new applications occurred after fiscal year 1975 as traditional sources of referral were notified of the program's emphasis on reaching a more severely disabled clientele.

One of the more important caseload occurrences was observed in the backlog of applicants awaiting an eligibility decision on September 30, 1987. An increase

percentage of all eligibility determinations resulting in acceptances for rehabilitation services—has ranged fairly narrowly from 54.8 percent to 59.5 percent for over a decade. Prior to the advent of the Rehabilitation Act, acceptance rates well in excess of 60 percent were typical. The acceptance rate in fiscal year 1987 was 57.7 percent, down from the 58.3 percent rate in the previous year.

The decline in the total number of acceptances since fiscal year 1976 has been almost entirely among people who

if these people have rehabilitation potential. The process of providing these selected services is referred to as extended evaluation. There were 47,834 people in receipt of extended evaluation at some time during fiscal year 1987, a decrease of 5.2 percent from 1986. Overall, only 3.3 percent of the total agency workload was accounted for extended evaluation cases in 1987, or about 1 case in 30. The distribution of extended evaluation cases was highly skewed by state agency with the five leading agencies accounting for 37.0 percent of these cases, but only 14.7 percent of the entire caseload.

Mr. Mars is a senior statistician for RSA.

43 state agencies experienced a gain in rehabilitations and 38 in persons served.

in this backlog of 8,699 people, or 3.5 percent, to 256,951 people occurred compared to the level 1 year earlier. This was the third consecutive expansion in the carry over of applicants and augurs well for an eventual halt to the long-term contraction in the size of the active caseload. Just 3 years earlier (September 30, 1984), there were 25,000 fewer applicants awaiting an eligibility decision.

New Acceptances for Services

The number of people determined to be eligible for rehabilitation services was 344,553, a decrease of 0.5 percent from fiscal year 1986. This was the second decline in a row, but the level of new acceptances has been close to 350,000 for 5 years. Given the buildup in the backlog of applicants at the end of fiscal year 1987, an increase in new acceptances in fiscal year 1988 would not be unexpected. The highest number of new acceptances—534,491 people in fiscal year 1975—occurred before the Rehabilitation Act began to take full effect.

Although the number of new acceptances is much less than it was in the mid-1970's, the acceptance rate—the

are not severely disabled. In the 12 years of available data, the number of severely disabled people accepted for rehabilitation services has changed little, ranging from 200,600 in fiscal year 1982 to 226,287 in 1979. The number of acceptances of severely disabled people in 1987 was 223,448, an increase of 2.1 percent from the fiscal year 1986 intake. While long-term acceptances of severely disabled people into the state-federal rehabilitation program have been fairly stable, acceptances of nonseverely disabled people have fallen dramatically, totaling only 121,105 people in fiscal year 1987, barely 50 percent of the comparable total in 1976.

During the last decade, the severely disabled have increased their proportion of all new acceptances in every year except one, starting with 48.9 percent of the total in fiscal year 1976 and reaching 64.9 percent in 1987, a record high.

The Use of Extended Evaluation

In the event that a judgment of eligibility for rehabilitation services cannot readily be made, state agencies can provide selected services to clients for a period not to exceed 18 months to see

Bell Convention Set July 19-23 in Florida

Twelve short courses that focus on communication strategies, mainstreaming and developmental skills for hearing impaired people are scheduled for the Alexander Graham Bell Association for the Deaf International Convention in Orlando, Florida, July 19-23.

The 5-day program will also offer a variety of mini-seminars, discussions and audiovisual presentations for professionals, parents and oral deaf adults. Also, an exhibit hall will showcase the latest in products and services designed to meet the needs of hearing impaired people.

For more information, contact Kim Readmond (for course and speaker information), or Susan Coffman, Director of Professional Programs and Services (for registration information), Alexander Graham Bell Association for the Deaf, 3417 Volta Place, N.W., Washington, D.C. 20007. Telephone: (202) 337-5220.

Lawyers

(Continued from page 7.)

fund is the brain child of attorney Joseph G. Blum, senior partner of Blum, Haimoff, Gersen, Lipson, Slavin & Szabad. While president of the New York Society for the Deaf, Mr. Blum saw the need for deaf leaders in the deaf community. He felt that the best advocates for deaf people would be deaf people themselves, and he believed that deaf professionals should be given opportunities to provide social services to their fellow deaf citizens. The fund, named for one of Mr. Blum's late law partners, Samuel Berger, has provided benefits to almost 100 deaf graduate students at New York University since it was founded in 1974. It is jointly administered by the university and the New York Society for the Deaf. Chatoff, Schwartz and Tolleris are all Berger Deaf Scholars—a distinction to which they have added as much honor as was bestowed upon them. They also profited at one time or another from vocational rehabilitation, for which they are grateful.

Law as a Career for Deaf Persons

How do these three young men feel about law as a career for deaf people? Have they found their hearing impairment to be an impediment to them up to now? Chatoff's remarkable career speaks for itself. Despite all impediments, he has made remarkable progress in pursuit of justice for his clients. He states, "There is nothing that a deaf person cannot do in the legal profession; it is important to remember that 95 percent of all legal work is done outside of court, but a deaf person can handle courtroom work if it becomes necessary." Chatoff advises deaf students entering law school to "participate in classroom discussions; the ability to think and speak on one's feet is very important." Secondly, Chatoff urges such prospective attorneys to

"learn how to write well." As for employment opportunities, he advises the deaf lawyer to seek "a progressive . . . employer."

Tolleris, who has chosen a different path entirely, has an excellent record in government service. He is highly respected in his area of government, a difficult one at best. Tolleris does not see why a well qualified, hearing impaired person should not seek a career in law. He had no difficulty securing his present position, and he has no difficulty in holding it. The only concession his employer makes to his hearing problems is to provide an amplifier on his telephone. But he said wryly, "The practice of law is not easy, and it is not for everyone."

Schwartz fairly responds yes and no to the preceding questions. Yes, he feels deafness should not deter a person who wants a law career. He also found ready acceptance in the public sector, receiving offers from the District Attorney's Office, New York City's Office of Corporation Counsel, and the New York State Attorney General. But he did not find the same welcome in other areas of legal practice:

"The private sector, however, was not so encouraging. I had an interview with a Park Avenue law firm, and while they were intrigued with me, they declined to make me an offer because they felt that my interests did not coincide with the firm's own interests. While that may have been true, I do believe that my hearing impairment alarmed them and they did not know how to deal with potential problems that might arise on the job."

Both Tolleris and Schwartz stress the importance of strong motivation and good qualifications. As deafness should not prevent a person from entering the law, it should not be thought of as an advantage or an excuse. "I would encourage deaf people who are qualified to pursue a law career. I say qualified

because the law does not impose an obligation on any university to accept a deaf candidate just because the person is deaf; and by qualified, I mean being able to read and write English fluently," avers Schwartz. Tolleris vigorously agrees with him.

Conclusion

What about Mr. Blum's insight about deaf leaders serving deaf people? Is there merit in having deaf lawyers who can provide an extra measure of empathy in their advocacy on behalf of deaf clients? Michael Chatoff makes a particularly cogent appeal for the rights of deaf persons in court in an article he addressed to his fellow attorneys:

"Legally, deaf individuals are among the truly disenfranchised. It is axiomatic that one who cannot hear cannot understand legal proceedings. Lipreading is a very imprecise science—even in an ideal situation an adept lipreader can understand no more than 40 or 50 percent of words spoken on the lips, but a courtroom proceeding is far from an ideal situation . . ." (Chatoff, 1972) He continued, "As a matter of humaneness alone, individuals capable of assuring deaf individuals an opportunity to understand proceedings that threaten to deprive them of their freedom ought to seize the opportunity." He develops his points masterfully, includes a thorough review of applicable statutes and precedents, and suggests practical solutions. What the reader of his article cannot fail to find in it, however, is more than scholarship: his is the authority that comes from firsthand knowledge.

For the rehabilitation counselor facing an ambitious client, these cases cogently argue against the relevancy of disability. Being blind, mobility impaired or deaf should not limit the prospects of otherwise qualified students' abilities to master coursework and to succeed, with some accommodations, in the fields of

their choice. These thoughts are hardly new: rehabilitators can cite countless examples of high achievers among the disabled population. Their accomplishments provide antidotes against the twin viruses of stereotyping and underestimation, antidotes as much needed by clients as professionals. In this regard, the wise words of a researcher of the employment scene over the past three decades bear repetition; acknowledging the gains that have been made, he closes his most recent report, thus:

"The price of occupational opportunities, like the price of liberty, is eternal vigilance by all concerned—researchers, educators, placement officials, and, most importantly, hearing-impaired workers themselves." (Crammatte, 1987)

Dr. Schein is a Sensory Rehabilitation Consultant, 1703 Andros Isle, J-2, Coconut Creek, Florida 33066.

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Chathoff, Michael (1972). The Deaf Individual in a Legal Setting. *New York Law Journal* 64 (July, 19-23).

Crammatte, Alan B. (1987). *Meeting the challenge*. Washington, D.C.: Gallaudet University Press.

Aphasia Workshop Set

"Aphasia Rehabilitation," a workshop being presented on April 12-13 in New York City, presents the clinical and research program of Martha Taylor Sarno and her colleagues focusing on its relevance to the speech pathologist's practice within medical rehabilitation. For further information, contact M. T. Sarno, R&T Center on Head Trauma and Stroke, New York University Medical Center, 400 East 34th Street, New York, New York 10016. Telephone: (212) 340-6025.

Communication, Control, and Computer Access for Disabled and Elderly Individuals. Sara A. Brandenburg and Gregg C. Vanderheiden, editors. College-Hill Press, Little, Brown and Company, 4284 41st Street, San Diego, California 92105. 1,056 pages (three volumes). Softcover, \$69.50 (complete set).

Book 1 covers communication aids; Book 2 covers switches and environmental controls; and Book 3 covers computer software and hardware. The books also include products that were originally designed for use by nondisabled people but are marketed specially for elderly or disabled people.

Adult Day Care: Considerations for Establishing Programs. National Easter Seal Society, 2023 West Ogden Avenue, Chicago, Illinois 60612. 78 pages. Softcover, \$20.00 plus \$3.95 for postage and handling.

This manual was developed to assist National Easter Seal Society affiliates considering adult day care as an extension to current programming, and is available to other agencies interested in alternatives to institutionalization for persons who are aging.

The guide covers all areas required for planning, including philosophy, need and feasibility studies, site considerations, program options, legalities, staffing, and funding.

The Aging Workforce: Implications for Rehabilitation. A report of the Eleventh Mary E. Switzer Memorial Seminar, May 1987. Leonard G. Perlman and Gary F. Austin, editors. Switzer Memorial Fund (Monograph #11) National Rehabilitation Association, 633 South Washington Street, Alexandria, Virginia 22314. 82 pages. Softcover, \$15.00.

This is the report of the proceedings of the Eleventh Switzer Memorial Seminar in Rehabilitation, which was hosted by the American Association of Retired Persons in Washington, D.C., in the Fall of 1986. The comments, ideas and recommendations of 20 Switzer Scholars that participated in the Memorial Seminar are found throughout the text.

Systems of Chronic Mental Illness. A special issue of the *Community Mental Health Journal*. Volume 22, Number 3. Fall 1986. Edited by Michael R. Berren, Ph.D., and Jose M. Santiago, M.D. Human Sciences Press Warehouse, Building 424, Raritan Center, 80 Northfield Avenue, Edison, New Jersey 08817. 246 pages. \$9.95.

Articles in this journal address issues ranging from the effects of fiscal retrenchment on services to a statewide planning model for providing a continuum of residential service settings for the chronically mentally ill.

Electronic Communication Aids: Selection and Use. Iris Fishman. College-Hill Press, Little, Brown and Company, 4284 41st Street, San Diego, California 92105. 160 pages. Softcover, \$17.50.

This book, written primarily for those involved in the treatment and care of people who are unable to meet all their communication needs through speech or writing, is a guide to the selection and use of electronic communication aids. It contains basic information on augmentative communication techniques and aids as well as suggestions and recommendations for clinical applications.



Horticulture

(Continued from page 9.)

● *Business Advisory Council* will identify and modify, where appropriate, jobs and opportunities for the disabled population and encourage area educators to be responsive to the industry's needs.

Recruitment Phase — Selection and Employment

After almost 10 months of researching all aspects of the HHD-Transitions Program, including the design format for implementation, Goodwill project staff were ready to begin actual recruitment of disabled youth for the program.

The contract vehicle for funding had performance requirements built in which stated that over the 3-year period a total of 140 developmentally or learning disabled youth would be screened for program participation, 100 would be enrolled in training related to horticulture and 70 would successfully obtain horticulture related employment.

Like any new program, HHD-Transitions invested a lot of time and effort in publicizing the initiative, and the response was excellent, even if somewhat misdirected. As previously mentioned, the project is targeted to developmentally and learning disabled youths aged 16 to 23; however, of the 75 or so first referrals, fewer than 50 percent met this criteria. Obviously, this created some problems in disposing of inappropriate cases and led to the expenditure of inordinate amounts of time trying to assist people in realizing outcomes unrelated to the project. As an aside, many of the nontargeted did find employment, in both horticulture and nonhorticulture related jobs.

Finally, an initial pool of 15 candidates that appeared suitable for cooperative education program participation and employment was established. This occurred in January-

February 1987. Job orders were matched to the pool, and it looked like the project was ready to "fly," until Mother Nature, who had different priorities, stepped in and let southwest Alabama have a series of heavy rains and freezes, delaying springtime plantings. The weather delay caused nurseries to cancel their job orders, because to meet their springtime production requirements they couldn't afford to set aside time for the training phase.

A series of consultations ensued, and it was agreed that as soon as the school year ended the nursery business people would make jobs available for the selected group of people, as well as for any others that were recruited in the meantime. This decision, though made in deference to the industry, did have some negative effects on the targeted population, primarily by dashing expectations and causing the delay of a very critical adjustment to work period that would have been made through the cooperative education (work/study) model that was planned. Due to the time delay, referrals slowed considerably, causing disappointment.

With the arrival of June, 13 previously screened clients were placed in horticulture related jobs. Six of these were able to hold the jobs for 60 or more days, but only 1 of the original 13 is still employed at this writing. As bad as the performance looked, and without making excuses or looking for scapegoats, a thorough review was completed and evidence was found which indicated that, in the attempt to obtain impressive or positive numbers, the goals of the project were ignored or set aside by all parties concerned. This finding in itself would cause many project administrators to throw in the towel and quit. However, the project staff at Goodwill and the Business Advisory Council members wouldn't let a little adversity do them in; they have



since been able to learn from their mistakes and now concentrate their efforts to the tasks at hand.

Activity through the latter part of the fall and early winter has increased and a viable pool of prospective trainees has been identified. Educational institutions at the high school level have renewed their cooperative education program assistance and, most importantly, the nurseries have been more involved in the screening and job identification availability process.

Standardized methods for screening have finally been established and the youth being identified for program participation now have a much better idea of what the opportunities are and what to expect on the job.

Plans are now under way to do successfully what was not accomplished last February: namely, to place cooperative education disabled students on job sites with adequate support to enable them to transition into full-time employment after graduation.

Other bright lights on the immediate horizon include accomplishments in the post secondary education area. Specifically, through the effort of a Business Advisory Council subcommittee on education, one of the local state vocational technical colleges, Carver State, has developed a curriculum and program design which will lead to an associates degree in horticulture. This offering is in the process of certification and is planned to start in September 1988.

Efforts are also underway to review and redesign the high school curriculum offerings in the horticulture area. Also planned are educational and promotional efforts by the South Alabama Nurserymen's Association to expose in-school students, disabled and nondisabled alike, to the opportunities within the field.

Evaluation and Replication Phase

Evaluation has been on ongoing process necessitating strategy modifications on numerous occasions. While modifications have been necessary, they have also been adopted in a positive way and have not affected the overall project goals. Replication efforts are in the early planning process, with informed discussions being held with Business Advisory Council members and others who may provide future funding.

To summarize, this experimental project may not be able to yet rate itself as successful, but with the maintenance of careful staff focus, attention and work, there is every reason to believe that in September 1988 all required and desired goals will be a reality.

It is our belief, that when the project model is finally developed and stabilized, we will be able to produce a legitimate study of which area of disabilities and client characteristics are suitable for employment in the ornamental horticulture field and which occupational areas in the industry can

be made available to this population at no risk to profitability.

Mr. Bartnicki is Projects With Industry Director and Ms. Preston is HHD-Transitions Manager; both are with Goodwill Industries of Mobile Area, Inc.

Computer Center Opens for Illinois Disabled

Illinois is joining a handful of other states in providing state-of-the-art computer technology for its 1.5 million men and women with disabilities to help break down some of the environmental barriers in homes and places of work.

With the opening of the Technical Aids and Assistance for the Disabled (TAAD) Center in Chicago, the state firmly establishes itself as a leader in providing the latest in services and computer technology for people with disabilities.

The center officially opened its doors during a public reception on October 7. It is located in the Illinois Children's School and Rehabilitation Center at 1580 West Roosevelt Road.

People with disabilities are invited to participate in TAAD Center activities, which will include sharing information about computers, gaining technical knowledge and skills in the use of personal computers, and working with manufacturers to develop computer models or modifications for use by people with severe disabilities. Visitors to the center can also learn about funding sources available for the purchase of computers and computer related equipment.

The TAAD Center is one of ten centers which make up the National Special Education Alliance, a project of Apple Computer, Inc.

SHIP

(Continued from page 13.)

cost of existing specialized programs for this disability group underscore the need for SHIP to develop a more diverse, expansive and cost-effective continuum of care.

Staffing

SHIP's staffing resources have also led to a waiting list for case management services. During the past 2 years the program has had to function with only two case managers. This fiscal year (July 1, 1987 - June 30, 1988) will see significant increases in staffing for this program. SHIP will be hiring seven additional case managers, two supervisors and a program developer.

In anticipation of this growth, we have carefully reviewed our capacity to deliver active case management services. We found that the combination of intensity of our case management model and severity of clients significantly impacts the total number of cases that each trained staff person can effectively manage. SHIP, therefore, is considering a cap on our caseload size. We are presently looking at other agencies in Massachusetts who are providing similar case management services. An example is the Massachusetts Department of Social Services (D.S.S.), whose mandate is to protect children while simultaneously respecting the right of families from unwarranted state intervention. A primary goal is to assist families to use the available resources and supports necessary to maintain the family unit intact. The case management models for SHIP and D.S.S. both deal with the comprehensive service needs of individuals and family units that are often in crisis. The demands on case management staff time for coordination, advocacy, intervention, documentation, and follow-up necessitates a manageable caseload size. At present,

D.S.S. workers maintain a 20-person caseload.

SHIP will continue to explore the issue of caseload size and its effect on the delivery of quality services. We have seen how effective case management can prevent crises from occurring and build upon the strengths of clients and their support network. These efforts reduce the risk of institutionalization and contribute to the smooth transition of consumers through clinically appropriate rehabilitation programs and services toward community reintegration. Our goal is to identify and establish a cap on caseload size that works for our consumers, families, staff, and agency.

Neuropsychology consultants are critical members of the SHIP team and are used to provide clinical supervision to staff; work cooperatively with case managers to complete eligibility determinations on all SHIP applicants; provide technical assistance and inservice training to professionals, families and other state agency case workers; and participate in program development. SHIP's experience in carrying out necessary administrative functions and providing direct services to clients, such as case management and purchase of service, has led to the identification of a level of consultative input that can meet the needs of the overall program. Based on a client caseload of 20, neuropsychology consultation is needed a minimum of 2 hours per week per case manager.

Program Initiatives

The established goals and planning priorities of the SHIP program are developed after we have received input from those we seek to serve. SHIP accomplishes this through an ongoing relationship and flow of communication with the Massachusetts Chapter of the National Head Injury Foundation. In addition, we have enhanced our ability to receive feedback from the community

through the establishment of an Advisory Council whose membership includes consumers, families and professionals. The council meets quarterly and has active subcommittees whose purpose is to have an impact on specific issues that significantly affect head injured people across the Commonwealth. SHIP's projects and activities are of particular interest to the council.

The planning, coordination and development of a statewide service delivery system for traumatically head injured survivors began last year when SHIP identified the need for specific programs and initiated their implementation. These pieces of the continuum were chosen to address the immediate needs of our waiting list. They target at risk clients and those living at home who are not receiving any services or are being served inappropriately. These programs include:

- A 12-bed secure inpatient neurobehavioral unit that will provide specialized rehabilitative services to clients with the most severe behavioral problems who cannot be served in less restrictive environments.

- Two-day programs each serving 20 people from Western and Central Massachusetts. These clients do not have vocational potential at this time but can benefit from structured activities leading to a higher level of independence in their homes and communities. The programs will also indirectly provide respite care to families which we hope will allow them to regain their strength and stability.

- A two-person community-based housing program with 24-hour supervision.

These program models were chosen from the vast continuum of care needs because they would directly impact the existing SHIP waiting list and Priority I crisis list we maintain.

SHIP plans to expand its program development activities this year and has

received appropriations to implement community-based housing for eight more persons, two more regional day programs similar to the model described above and one supported employment pilot project. Funding for these services came after extensive lobbying by members of the Massachusetts Chapter and SHIP's Advisory Council. This could not have occurred if these consumers, family members and professionals had not participated in the development of these priority areas with the SHIP staff.

Needs Assessment

Continued support by the legislature for program development initiatives depends on the outcome and recommendations of a statewide needs assessment conducted by SHIP over the past 1½ years. This report is due out in the next few months and is the first study ever done in Massachusetts on the needs of head injured people. It will attempt to identify more precisely the incidence of head injury in this state as well as the gaps in service delivery to this population. The program development needs section will be based on the analysis of data collected from a survey distributed to over 2,500 consumers, family members and professionals in the state.

It is impossible to discuss the incidence of head injury without concern for the prevention of this catastrophic disability; therefore, a chapter in the needs assessment will be devoted to outlining the primary causes of this injury and recommending prevention strategies that the state can institute in an effort to reduce the number of victims each year. The results of this study will be used to formulate short- and long-term goals for this program in all of its key service delivery areas. The data this report generates will also contribute to strengthening the planning efforts of other state agencies and private providers interested and committed to

assisting in the development of a coordinated and comprehensive system of care for this population.

Conclusion

The Statewide Head Injury Program is a new and innovative model of service delivery for traumatically head injured people and their families. We believe that this state supported program can be effective in dealing with the enormous consequences of traumatic head injury. The four key elements of SHIP can work together to provide the services, supports, information, and fiscal resources necessary to make a difference.

SHIP's ability to meet this challenge over the next decade will depend on:

- a decrease in the incidence of head injuries through increased public education and awareness of injury prevention strategies;
- the continued support of the Massachusetts Legislature through budget appropriations;
- the creative use of all available resources within the Commonwealth;
- the identification of and access to alternative funding sources, *i.e.*, catastrophic injury insurance coverage and federal funding for demonstration programs; and
- the ability to work cooperatively with the public and private sector in an effort to build a comprehensive statewide service delivery system.

Our success will be measured, in time, by the opportunities we are able to provide to traumatically head injured survivors that allow them to reach their maximum level of independence, reintegrate into the community and, once again, lead productive and meaningful lives.

Ms. Kamen is Director, Massachusetts Statewide Head Injury Program.

Forums

(Continued from page 17.)

Community meetings, following the same process as outlined above, occur regularly. Depending on the nature of the policy or issue being discussed at a community meeting, participants may be asked to rate or prioritize their suggestions.

After several years of this process, department staff are becoming adept at interpreting the results of the community meetings. Some hints about community reaction can be gleaned from the numbers of people attending a meeting. If few people show up, one can assume that things are going well enough that people don't feel it is necessary to "let the director know" how the agency is doing. On the other hand, if a lot of people show up, but don't have many questions, they may be providing a show of support for the agency. If a few people in each location have the same types of questions, the policy or issue may not be understood by the community. Further explanation will be necessary to garner community support. The important thing is that the director listens and takes notes. People know when they are being listened to and it helps them feel an integral part of the process, besides giving them a sense of ownership of the decision.

An important benefit of community meetings is that they create a perception that the director is available for interaction with concerned citizens. The opportunity for input is what is important; people are asked to provide information or feedback before a crisis situation occurs.

Another benefit is that it provides data for meetings with legislators. The results of community meetings are indicators of the interests and concerns of legislators' constituencies regarding new

programs or additional resources. It is a potent statement to a legislator to say, "I just completed a series of community meetings and the number one concern is the continuation of independent living services in the state."

For example, during the most recent series of community meetings, the issue of providing more transition from school to work services was raised. The agency currently has two staff persons, child and family workers, who provide consultation to teachers with blind students on how to accommodate their teaching strategies to best teach. The child and family workers participate in Individual Education Plan development and are in a good position to discuss vocational rehabilitation services and assure students a transition from the school setting to the vocational rehabilitation services provided by the Department of Services for the Blind. The agency had sufficient documentation of the extent of the need for transition services to justify to the Legislature the addition of another person to provide transition services to students of various school districts.

At an earlier series of community meetings, the participants were asking questions about the extent and quality of basic orientation and mobility skills each blind person may need. They were concerned that skill needs be identified and the necessary services provided as quickly as possible. The department saw multiple benefits to pursuing this issue, not only to provide needed services, but also to provide an assessment of current skill levels for assessing vocational handicap for client eligibility determination.

The result of considerable policy and procedure development (previously described) was a new service providing a baseline assessment of various orientation, mobility and homemaking skills. This assessment was used in identifying

functional limitations and substantial handicap to employment as well as providing the basis for the provision of orientation and mobility services.

It is almost anticlimatic to say that, in addition to all the above, this process can also meet the requirements of the 1986 Amendments to the Rehabilitation Act for public meetings. Section 101(a)(23)(A) requires a state agency to "provide satisfactory assurances that in the formulation of policies governing the provision of rehabilitation services consistent with the State Plan, and any revisions, that the state agency conducts public meetings throughout the state, after appropriate and sufficient notice, to allow interested groups and organizations and all segments of the public an opportunity to comment on the State Plan . . ."

The content of a series of public meetings can be focused on various portions of the State Plan, such as expanding services to individuals with severe handicaps, *etc.*

After 5 years of experience with community meetings, the Washington Department of Services for the Blind has completed rules and regulations, is nearing completion of a full policy and procedure manual, is making significant progress in providing full and appropriate rehabilitation services, and enjoys a large measure of respect from the blind community.

In addition, a Sunset Review was recently completed on the Department of Services for the Blind. The summary letter provides the following:

"We found significant improvements in the agency's programs and services and outstanding performance by the agency's business and fiscal section. In contrast to the many recommendations that were necessary in previous reports, we are pleased to make but a single recommendation—that the Legislature repeal the sunset clause and thereby continue the agency."

The long road to achieving this success is in great part due to listening to the community and being responsive to its needs. The Washington Department of Services for the Blind credits its community meetings with helping to keep in touch. The constituents truly believe they are a part of the agency, that their ideas count and they are an important ingredient in maintaining a well run agency.

Although the Rehabilitation Act, as amended, now requires public input to state vocational rehabilitation agency policy development and state planning,

many state agencies have potent processes in place. This article has tried to outline the process the Washington Department of Services for the Blind uses to accomplish this activity and to highlight the potential benefits of well run public meetings.

Ms. Koreski is the RSA Regional Rehabilitation Representative, Region X. Ms. Smith is the Deputy Director of the Washington Department of Services for the Blind, and Mr. Olson is Vocational Rehabilitation Administrator in the same agency.

Scholarships Available for Blind Students

The American Council for the Blind (ACB) will award eight scholarships to outstanding blind and visually impaired students in 1988.

All legally blind people admitted to academic, vocational, technical, and professional training programs at the postsecondary level for the 1988-89 school year are encouraged to apply.

Applications are available from the ACB national office, 1010 Vermont Avenue, N.W., Suite 1100, Washington, D.C. 20005. Telephone: (202) 393-3666.

A \$1,500 award will be made to a top student in each of these categories: entering freshmen in academic programs, undergraduates (sophomores, juniors and seniors) in academic programs, graduate students in academic programs, and vocational/professional school students. Applicants will be compared with other applicants in their category, which means that entering freshmen in academic programs will be competing for funds with other first-year students.

The \$1,500 Melva T. Owen Memorial Scholarship, provided by the Tarver

Foundation, will be granted to an outstanding student at the undergraduate level.

The \$1,000 VTEK Scholarship, provided by VTEK Corporation, Santa Monica, California, will be awarded to an outstanding student in the entering freshmen category.

Beginning in 1988, due to a gift from the late William Corey, Pittsburgh, Pennsylvania, two scholarships will be made available in the amounts of \$1,500 and \$1,000 to Pennsylvania residents.

Leading scholarship candidates will be interviewed by telephone in May and early June. The ACB scholars will be notified no later than June 15. The scholarships will be announced at the 27th annual convention of the American Council of the Blind to be held July 2-9 in Little Rock, Arkansas. Efforts will be made to enable many of the winning scholars to be present at the ceremonies.

Among the criteria to be considered in selecting the scholars will be demonstrated academic record, involvement in extracurricular/civic activities and academic objectives. The severity of the applicant's visual impairment and his/her study methods will also be taken into account in the selection process.

Evaluation

(Continued from page 15.)

Implications

The authors drew four conclusions. The first one was that offering the traditional work evaluation along with the complete array of CDWE services is useful to more clients and counselors than only offering the traditional work evaluation. Second, offering both the traditional work evaluation and the Counselor Directed Work Evaluation services allows a better usage of available staff time. A third advantage appears to be that offering the mix of services and dynamics (individual and groups) provides more variety for the service provider. Fourth, because each CDWE service is a self-contained service, implementation of CDWE can be done gradually or in any combination. Finally, offering an array of evaluation services is a way of remaining cost effective as the staff sees many more clients. The clients receive only those services needed and the counselor makes decisions and interprets results, freeing evaluator time.

Mr. Koenke is Supervisor, Special Services Unit, Wisconsin Division of Vocational Rehabilitation. Mr. Wichert is Counselor/Evaluator, Wisconsin Division of Vocational Rehabilitation.

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Texas Council Formed on Independent Living

The Texas Independent Living Council now being formed is expected to help improve and expand independent living services across the state and is being viewed as a new age of emphasis on independent living services in Texas.

Empowered by recent amendments to the Rehabilitation Act, similar councils in each state will develop a 5-year state plan for services and offer ongoing guidance to agencies and local planning groups in expanding independent living programs.

Membership on the Texas council will consist of agency representatives, representatives from both public and private organizations concerned with services or interested in employing people with disabilities, directors of independent living centers, and people with disabilities and/or their parents or guardians.

AFB Project to Aid American Indians

The American Foundation for the Blind (AFB) has launched a 17-month project to help improve the quality of life for elderly blind and visually impaired American Indians.

The project, entitled "A Training Model to Teach Community Outreach Workers to Train Elderly Blind and

Visually Impaired American Indians Independent Living Skills: Focus on Family Rehabilitation," is funded by a \$200,000 grant from the U.S. Administration on Aging.

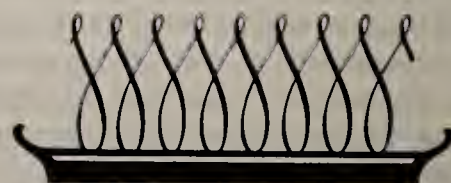
A rehabilitation training model will be developed for 200 Indian community health representatives, who will in turn teach 10,000 elderly blind and visually impaired American Indians adaptive independent living techniques. Training is scheduled at five sites around the country and project coordinators will refine and improve the model based on experiences at these sessions. The model will then be disseminated to local, state and federal organizations, agencies on aging and blindness, and national American Indian organizations.

Workshops on Stroke Scheduled May 19-20

"Assessment and Management of the Perceptual, Cognitive, Affective, and Psychosocial Consequences of Stroke" is a 2-day workshop being presented in New York City May 19-20. Over the past 16 years, programs to remediate problems of post stroke patients have been developed by faculty of this workshop. Both long-established and new programs will be shared.

A 1-day workshop on "Biofeedback and Motor Recovery After Stroke" is scheduled May 9 and will be repeated on June 10, June 24 and July 15.

For more information on these workshops, contact Ira Ehrlich, R&T Center on Head Trauma and Stroke, 400 East 34th Street, New York, New York 10016. Telephone: (212) 340-6184.



REPORT RESOURCES

WORKSITE MODIFICATION—A PRAGMATIC APPROACH. John Leslie, Ph.D., of the Cerebral Palsy Research Foundation of Kansas and Co-Director of the Rehabilitation Engineering Center on Work Site Modification located at the Foundation. 41 pages. A volume in the *Rehabilitation Research Review* series published by the National Rehabilitation Information Center (NARIC), 4407 Eight Street, N.E., Washington, D.C. 20017. The charge for each *Review* is 5 cents a page with a \$5.00 minimum. Requestors obtain a listing of all *Reviews* available.

The author laments the dearth of literature on worksite modification which he defines as "the process of analyzing a disabled person and potential job tasks with the ultimate result being the design of an adaptive device, the appropriate software and/or alternative techniques." Dr. Leslie discusses the work of major and minor centers, organizations and agencies concerned with worksite modification. Foreign involvement is presented as significant, but scarce in English translation.

REHABILITATION OF PERSONS WITH CHRONIC LOW BACK PAIN. Harold Carron, M.D., and Richard Tanenbaum, Ph.D. 78 pages. A volume in the *Rehabilitation Research Review* series published by the National Rehabilitation Information Center (NARIC), 4407 Eight Street, N.E., Washington, D.C. 20017. The charge for each *Review* is 5 cents a page with a \$5.00 minimum. Requestors obtain a listing of all *Reviews* available.

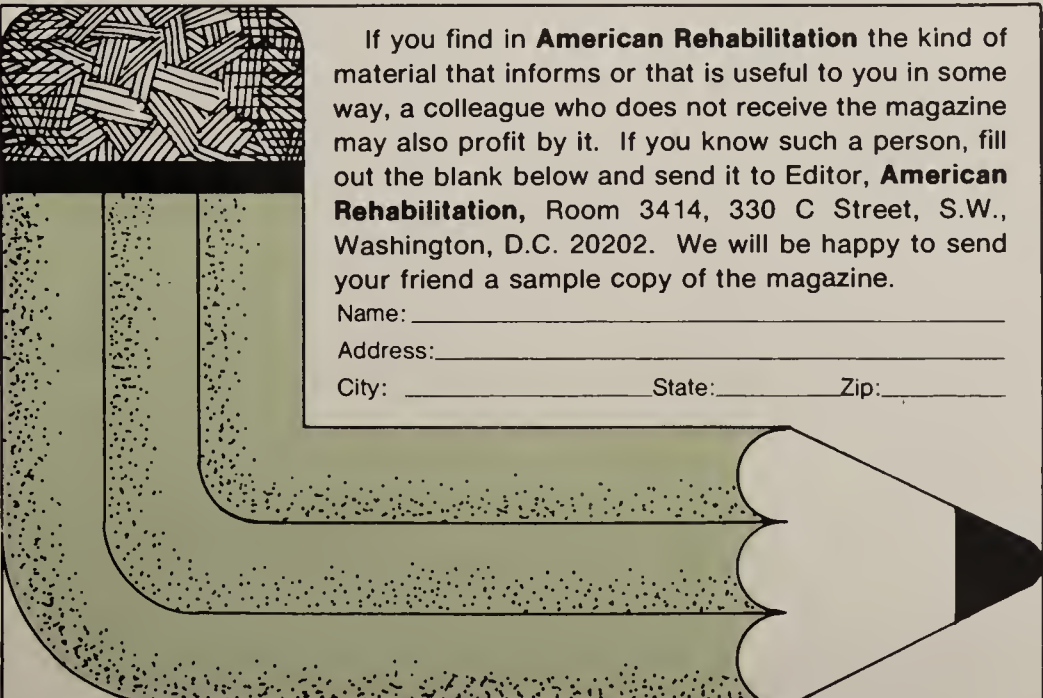
The authors cover both physical and psychological aspects of chronic low back pain disabilities. The document provides rehabilitation and medical professionals with comprehensive information on current research in eight areas: epidemiological and demographic factors, assessment, surgical approaches to treatment, physical rehabilitation, multidisciplinary therapy, innovative approaches, chronic pain assessment studies, and chronic pain treatment/rehabilitation programs.

PSYCHIATRIC REHABILITATION. William Anthony, Ph.D., and George Dion, Sc.D., Boston University. 57 pages. A volume in the *Rehabilitation Research Review* series published by the National Rehabilitation Information Center (NARIC), 4407 Eight Street, N.E., Washington, D.C. 20017. The charge for each *Review* is 5 cents a page with a \$5.00 minimum. Requestors obtain a listing of all *Reviews* available.

The authors' review of the literature is "consistent with the mission, client demographics, types of interventions, and outcomes that characterize the field of psychiatric rehabilitation." They provide a chronological review of experimental studies on the topic from 1971 to 1986. The authors conclude that psychiatric rehabilitation interventions positively affect rehabilitation outcome, but stress the continuing need for experimental research on replicable, measurable psychiatric rehabilitation interventions.

INTERNATIONAL DIRECTORY OF PERIODICALS RELATED TO DEAFNESS. Gallaudet University Press, Gallaudet University, 800 Florida Avenue, N.E., Washington, D.C. 20002. 120 pages. \$5.00.

Contains more than 500 domestic and foreign periodical titles. Each entry, arranged alphabetically, includes title, date of initial publication, frequency, price, editor, sponsoring organization, name/address of publisher, and other pertinent information.



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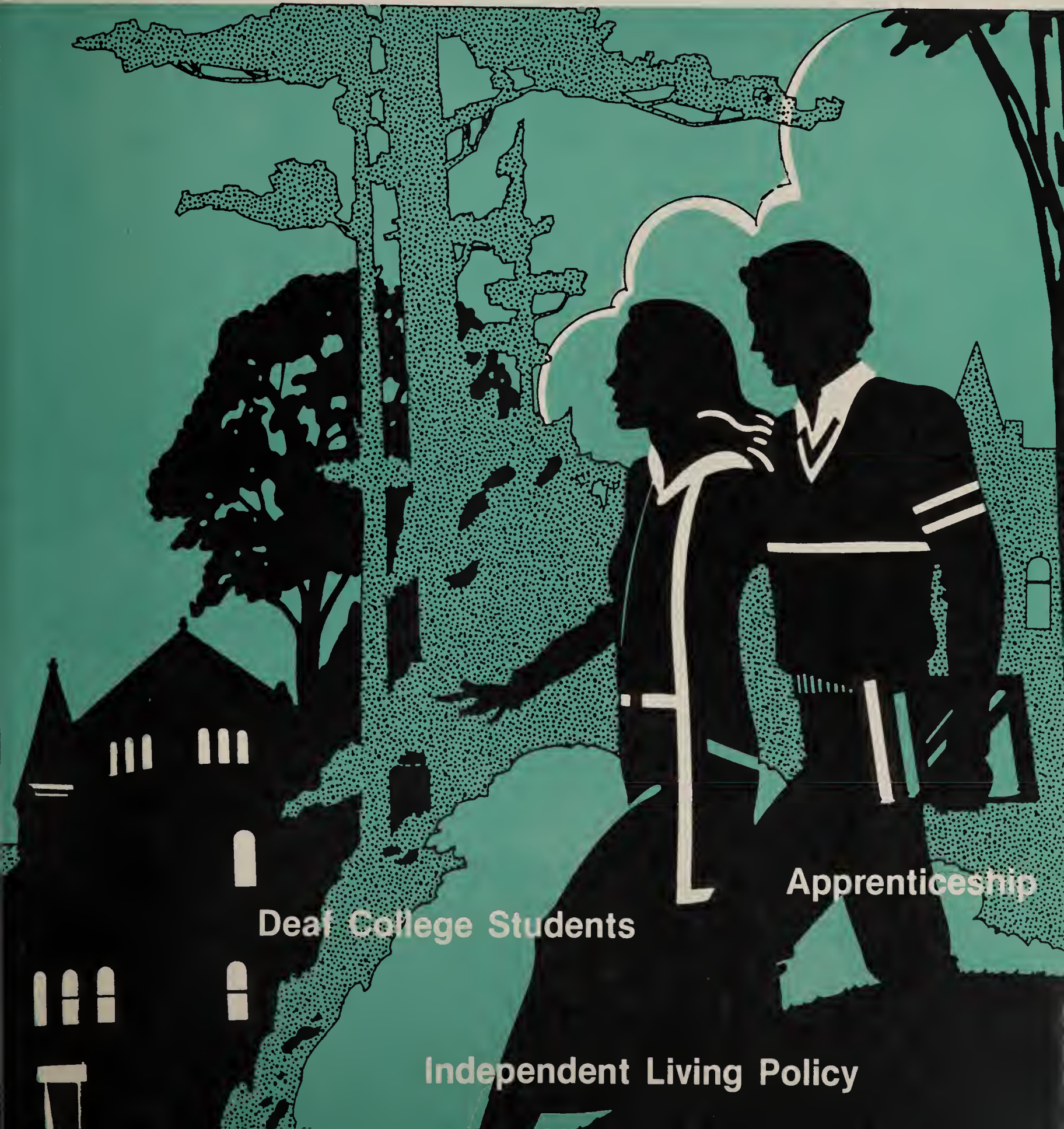
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April-May-June 1988

AMERICAN REHABILITATION



Deaf College Students

Apprenticeship

Independent Living Policy



*You're looking at one of the best
high school wrestling teams in the country.
They're from the New York School For The Deaf.*

Last season they were 11-2, and won their league championship.

Team captain Mike Caminiti hopes to continue wrestling in college, and eventually work with his father, a building contractor.

When Rodell Harris isn't tossing around opponents, he's tossing salads. He plans to own his own restaurant.

Mark Howard will study business management and accounting in college, and Noe Santiago is considering a career in art.

Winning is important to these guys.
They give everything their best shot.

We love the same country.
We care about the same things.
We dream the same dreams.
1981. The International Year
Of Disabled Persons.

President's Committee on
Employment of the Handicapped
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AMERICAN REHABILITATION

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domestic, \$6.25 foreign; single copies are \$1.75 domestic, \$2.18 foreign) See Cover IV for order blank. Correspondence concerning paid subscriptions should be sent to Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20202.

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Apprenticeship for People With Disabilities

Donald M. Clark, Ed.D.
James H. Hughes, Ph.D.

Disabled people are disproportionately represented in our nation's work force as well as in major education, training and employment programs whose primary purpose has been to assist people to enter the world of work.

In response to this situation, recent federal and state policy and program initiatives, as well as professional associations, have placed greater emphasis on facilitating the school-to-work process for people with disabilities. Apprenticeship represents a viable employment and training component of this process.

Limited attention, however, has been given to the role that apprenticeship can play in furthering the transition from school to work for disabled people and little information is available in the professional literature.

To help close the information gap and stimulate further program developments, the National Association for Industry-Education Cooperation (NAIEC), under a grant from the National Institute on Disability and Rehabilitation Research, U.S. Department of Education, conducted a state-of-the-art study in 1985-86 on the participation of disabled people in apprenticeship programs. The results of this 1-year study are discussed in this article.

Apprenticeship programs have at least two features which support the participation of people with disabilities. These features are:

- They provide employment and income during the training period, an approach often referred to as "earn while you learn." This feature provides disabled students, who often have limited access to financial resources, a good base of economic support. This may be especially true for people who may not qualify for any type of disability income.

- They emphasize instruction which is primarily on-the-job training. This approach is recognized as effective in cooperative work preparation for high school special education students as well as in a variety of industry-education collaborative efforts.

National Survey on Participation of Disabled People in Apprenticeship

To generate new information for NAIEC's state-of-the-art study on participation of disabled people in apprenticeship programs, several strategies were devised. These strategies included selected interviews, mail and telephone surveys, site visits, and structural meetings.

The mail and telephone surveys were used to establish a broad base of information. They were directed toward formally organized agencies and organizations including state personnel responsible for

vocational education for disabled, disadvantaged and limited English proficient people; state apprenticeship agencies and councils; national organizations and officials promoting apprenticeship and training; state directors of special education; state vocational rehabilitation agencies; members of the Federal Committee on Apprenticeship; and regional directors of the Bureau of Apprenticeship and Training (BAT).

The survey yielded useful information on the identification of issues and concerns, current program status and exemplary programs and practices.

In summarizing the data, the survey revealed that the number of disabled people participating in apprenticeship represents less than 2 percent of the total apprentice population.

State special education directors and state coordinators of vocational special needs programs indicated that apprenticeship was not being used to facilitate transition from school to work for disabled students. Indeed, the vast majority of vocational special needs coordinators do not feel that their secondary and postsecondary programs are being coordinated with apprenticeship.

A variety of incentives that encourage the use of apprenticeship by disabled people can be found in legislation and regulations, administrative policies, and

in characteristics of programs and persons served. Some specific examples of these incentives are the Equal Employment Opportunity regulations, the Job Training Partnership Act funding policies, targeted job tax credits, vocational rehabilitation subsidies, Projects With Industry (PWI) programs, and amendments to the Education of the Handicapped Act, P.L. 94-142, regarding transition.

A number of factors (e.g., attitudes, program policies and practices, and architectural and communication barriers) have inhibited the participation of disabled people in apprenticeship. Job safety, competition with nondisabled workers and a lack of effective linkages between private industry and community training programs and local education agencies are other examples of barriers confronting disabled people seeking to enter apprenticeship programs.

Statistical and descriptive information on disabled people's participation in apprenticeship in the states is generally limited, anecdotal, related to a special

project, or simply not available. The exceptions are the apprenticeship agencies in Puerto Rico and New York, which have provided comprehensive information on their programs. At the federal level, the data base on registered disabled apprentices has been incomplete, both in terms of adequacy of content and of time span coverage. Recent efforts, namely the BAT's Apprenticeship Management System, bode well for a better information system in the future, with inclusion of information on disabled people being feasible.

Exemplary Programs and Practices

There are a number of exemplary apprenticeship programs for disabled people that highlight collaboration between the public and private sectors.

The Southeast Institute of Culinary Arts in St. Augustine, Florida, provides an apprenticeship experience for disabled students in its Culinary Arts program. Approximately 50 percent of the students enrolled in the institute and its appren-

ticeship program are disabled (e.g., learning disabled, hearing impaired and legally blind). Ten percent of the disabled students are physically disabled. All institute staff members have been trained to serve special needs students.

Student apprentices are evaluated weekly on job performance; a daily log book is maintained and signed by the employer while students are on apprenticeship duty, which consists of a total of 6,000 hours. Services to improve the completion and retention of qualified disabled apprentices include individualized tutoring and training, remedial labs, 12 full-time instructors trained to serve special needs students, and instructional/physical modification.

The institute, which is affiliated with the American Culinary Federation, Inc., and is a division of the St. Augustine Technical Center, awards students "journeyman cook" status upon completion of the program. Economic benefits to employers participating in the institute's apprenticeship program include tax breaks and training support under the Job Training Partnership Act.

Disabled trainees are participating in a tool and die maker apprenticeship program developed jointly by the J.G. Tool and Die Company in Baltimore, Maryland, and the Catonsville Community College in Baltimore County. The program, approved by the Maryland Apprenticeship and Training Council and the Federal Bureau of Apprenticeship and Training, leads to certification as a registered journeyman tool and die maker.

The college provides instruction on course theory, while the company is responsible for on-the-job training (OJT). James Griel and other small business owners are college adjunct faculty teaching in the tool and die apprenticeship program. The tool and die company's disabled apprentices, who are

(Continued on page 27.)



Dr. Hughes, Dr. Clark and an apprentice worker with disabilities (from left) discuss the program at Manso Auto Repair in San Juan. (Photo by Jorge Rodriguez.)

Need for Independent Living Services

report of a study/visit to European spinal cord injury centers

Frederick M. Maynard, M.D.

During a 9-week study/visit in 1987, the author visited 11 major spinal cord injury (SCI) centers in France, West Germany, the Netherlands, Switzerland, and Austria. Through interviews with physician-specialists in SCI rehabilitation and with other rehabilitation professionals, the availability of crucial independent living (IL) services in these countries was determined.

Both in the United States and in Europe, four major categories of IL services are generally considered crucial for people with severe disabilities to live autonomously: adaptive equipment, accessible transportation, modified housing, and assistance services (from another person). Also, in western nations availability of IL services to patients after discharge from an inpatient rehabilitation center often relates to how an accident occurred, since this usually determines insurance funding and financial support. Funding for IL services when an accident is not work related is most commonly determined by a patient's previous work history. This paper examines the complex and unique medical and social financing systems in Europe and the United States which relate to the provision of IL services and other disability benefits. It also addresses the decision making process concerning which services are provided and to whom. Specifically, the role of physicians in determining services is reviewed. The use

of standardized assessment instruments by physicians or other decision makers concerning funding for IL services is noted.

In all major European countries a disability pension of some type is available to people unable to work. People who have a previous work history usually qualify for a social security pension or a trade union pension. Although the concept of employer-employee contribution is similar in each country, the organization and regulation of the agencies making pension payments differ considerably. In European countries, inpatient rehabilitation is considered a routine benefit of the health insurance system. Only in the United States do many health insurance plans, whether they are obtained as a work benefit or through a federal or state program such as medicare or medicaid, consider rehabilitation hospitalization differently from acute care hospitalization and sometimes do not cover it as a benefit. The standard types of durable medical equipment is generally available to pa-

tients in all countries, although various degrees of paperwork is required for approval after appropriate review of need. Funding for modifications to private automobiles as a provision for accessible transportation is only rarely a benefit. Wheelchair accessible public transportation is of limited availability in all European countries.

Provisions for modified housing are considered in two ways. First, financial resources can be made available for modifying a private residence to meet a person's special mobility needs. Second, specialized housing can be provided for specific groups of people with disabilities. Only in the Netherlands is a major program available to assist people in modifying the architecture of their private residences. The availability of specialized housing varies widely between and within countries. There are clear advantages to a variety of options so that people with different degrees of disabilities, social support systems and backgrounds can have choices. The greatest number of options are available in the Netherlands. A considerable range of options is also found in France, although availability is spotty in different regions. In the other countries, specialized residential facilities are quite limited.

In the last important IL category of assistance services, a broad range of programs is available. Some provision is made in European countries for providing assistance services to people with such severe disabilities that they could not be independent in all activities of daily living (ADL's). However, in most European countries the amount of money available is only sufficient for people with modest needs for ADL assistance. In many countries the availability of assistance services is directly related to specialized housing options and only available to persons choosing one of these housing options. Even in those countries providing sufficient financing for assistance services there is often a severe shortage of available personnel.

Major observations on comprehensive spinal cord injury rehabilitation in Europe include:

- Comprehensive care for people with new onset spinal cord injury is more highly organized into specialized regional facilities in European countries than in the United States. Most care is provided in specialty hospitals which perform most aspects of acute care as well as long-term functional rehabilitation.

- Although the average lengths of stay for people with new onset spinal cord injury is frequently two to three times longer in the European specialty hospitals than in American SCI centers, the average daily costs are considerably less. This seems to result largely from lower patient to staff ratios and lower overhead costs associated with a facility having a single patient-group focus.

- There is definitely a reduced emphasis on social workers and psychologists as routinely necessary rehabilitation professionals in the European SCI centers. European patients also appear to have a higher degree of autonomy within the normal daytime staff working hours than in most American

centers, perhaps because appointment times for different rehabilitation therapies are not as highly scheduled. Because of the longer lengths of stay, patients appear to have more time for experiencing the functional and social consequences of their disability and for developing coping skills on their own.

- Because of the longer lengths of stay in highly specialized hospitals, which include excellent adaptive sports facilities, swimming pools and well designed environments for socializing and exploring avocational activities, patients are given an opportunity to experience a broader range of life activities

In all major European countries a disability pension of some type is available to people unable to work.

than they will have in most American rehabilitation centers. It is not clear whether this fosters a dependency on these specialized environments or facilitates reintegration into a broader range of activities in home communities. It does seem to give patients more time for redefining their own, new, maximal physical activity limits.

- Outpatient and homecare rehabilitation services are much less widely available in Europe than in the United States. This also promotes longer stays in the specialty hospitals.

- Extensive knowledge of potential financial benefits and funding resources is critical for people with new disabilities. Therefore, a major goal of rehabilitation professionals must be to sufficiently educate them about their possible benefit options so that they can make informed choices. Potential financial benefits and eligibility criteria are much too complex in all countries, except perhaps the Netherlands, for people who have not previously experienced disability to begin to understand their

choices without professional assistance.

- There is clearly an advantage to having a large number of options for people with severe disabilities from the standpoint of modified housing, accessible transportation and assistance services. One type of modified housing or one method of providing assistance services will not meet all individual needs. If people with severe disabilities are not to fall victim to the problems of welfare recipients, from the standpoint of dependency and escalating costs, then all programs must encourage individual creative solutions.

- There is a growing need for more

transitional rehabilitation facilities and specialized housing options in the United States. These needs are escalating rapidly because of the emphasis on shorter lengths of stay. Modifications to private residences are always time consuming and frequently prohibitively expensive. Without greater availability of transitional housing options, people with spinal cord injury will clearly be impeded in their ability to rapidly achieve maximal physical independence and the related psychological independence that is articulated by the independent living movement.

- Developing cost effective and equitable options for financing assistance services for people who cannot be independent in ADL's remains an enormous challenge. Clearly, assistance services that are provided by professional agencies are not only unnecessarily expensive, but leave the consumer with limited autonomy. Nevertheless, in the United States and in some European countries they are often the only source of assistance service available, or the on-

... patients are given the opportunity to experience a broader range of life activities than they will have in most American rehabilitation centers.

ly one that will be paid for by an insurance plan. The financial allocation provided in France to eligible people with severe disability is an interesting model because it is paid directly to the person with a disability and is not lost if the person should ever return to work. It is viewed as money to help offset the high cost of being severely disabled enough to need assistance with ADL's. In the United States, returning to work too often has a financial disincentive, since eligibility for assistance services money is related to income alone.

It should be noted that the Dutch experiment with the "client budget system" for assistance services (where the person with disabilities is fully responsible for hiring and firing his/her own assistants) was not highly popular, either politically or with large numbers of people with disabilities. Perhaps this was because several other reasonable options for specialized housing and assistance services were available in Holland. Dutch policy emphasizes that not all people with severe disability can manager a fully autonomous life in a private modified residence which requires being in charge of all their assistance services. Additionally, many may not choose such a lifestyle, even if finances for it were available. My own experience with patients who have recent onset quadriplegia and unlimited insurance benefits also suggests that very few of them are ready, willing and able to use a client budget system instead of agency provided assistance services.

The policies of the Dutch government, which reflect a deep commitment to full social integration and equal opportunity for people with disabilities, has produced impressive results. Their

system for limiting the costs implicit in such a generous commitment should be carefully considered as a model for the United States. By having one special review board (the GMD)—which includes disability determination specialist physicians, social policy makers and consumers—review all decisions about adaptive equipment, home modifications, specialized housing, and other special benefits, regardless of insurance funding source, a reasonably equitable assessment of actual need is assured. I was impressed that I met no persons with a disability nor rehabilitation professionals who felt that there were

In the United States, returning to work too often has a financial disincentive, since eligibility for assistance services money is related to income alone.

significant problems with the quality of decisions made by the Dutch review board.

- The role of specialty trained rehabilitation physicians should remain strong in determining the need for IL services as a way of insuring that appropriate physical need remains after feasible medical rehabilitative treatment has been completed. Frequent use of practicing rehabilitation physicians as consultants to these special review boards is important. By maximizing communication between the review board's disability determination physicians and the clinical rehabilitation specialists, cost-effective and creative solutions can best be made.

- The need to develop uniform assessment systems for determining the

need for IL services remains. Any developed system would best be considered as a tool for decision makers, rather than as an absolute criterion, because of the unique nature of physical disability and the handicapping aspects of community and culture.

The following table summarized the financial provisions for IL services in each of the countries visited and in the United States. In all countries, the funding for IL services was greater if a person had a spinal cord injury as a result of a work related accident. Although the number of people with new spinal cord injuries who are covered under workers' compensation insurance varies considerably between countries, the IL service benefits in these cases were uniformly broad and are therefore not considered in the table.

Dr. Maynard is Associate Professor, Department of Physical Medicine and Rehabilitation, University of Michigan Medical Center, Ann Arbor, Michigan.

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PROVISIONS FOR AND AVAILABILITY OF CRUCIAL INDEPENDENT LIVING SERVICES IN SEVERAL EUROPEAN COUNTRIES AND IN THE UNITED STATES

DISABILITY PENSION	IN-PATIENT REHABILITATION		ADAPTIVE EQUIPMENT		ACCESSIBLE TRANSPORTATION		MODIFIED HOUSING		ASSISTANCE SERVICES	
WH	Yes	No	WH	No	Modified Private	Public Availability	Private Adaptation	Specialized Housing	WH	No
FRANCE										
Yes	Yes		Yes*	Yes*	No	Variable	No	Many options*	Yes*	Yes*
Social										Related to housing options
Security										Variable availability
Allocation										
NETHERLANDS										
Yes	Yes		Yes*	Yes*	Yes*	Limited	Yes*	Several options	Housekeeping	Housekeeping
Trade									Yes	Yes
Unions						Special compensation			Personal care	Personal care
Assistance									Yes*	Yes*
									Related to housing options	Related to housing options
WEST GERMANY										
Yes	Yes		Yes	Yes*	No	Limited	No	Very limited	Yes	Yes
Statutory									Through nursing agencies#	Conscientious objectors#
Workers										
Insurance										
SWITZERLAND										
Yes	Yes		Yes	Yes**	Yes**	Very limited	Yes**	Very limited	Yes**	Yes**
Invalidity									Limited availability	Limited availability
Insurance										
(Covers										
Dependents)										
AUSTRIA										
Yes	Yes		Yes	Yes	No	Very limited	No	Very limited	Yes	Sometimes#
Workers									Limited availability	Limited availability
Disability									through nursing agencies	through nursing agencies
Insurance										
UNITED STATES										
Yes	Usually	Often limited	Yes	Limited #	No + +	Variable	No + +	Many Options	No + +	Sometimes#
Social										Variable availability
Security										
Disability										
Income										

WH = Work History
+ = Assumes non-institutional residence
= Variable benefits, administered through states
* = Agency approval required
+ + = Sometimes covered by catastrophic policies
** = If able to work
= Low-cost housing subsidies, limited availability

Characteristics and Success of Deaf College Students

in three types of educational environments

Gerard G. Walter, Ed.D.
William A. Welsh, Ed.D.

With the passage of Section 504 of the Rehabilitation Act of 1973 (P.L. 93-112), as amended in 1974 (P.L. 93-516) and 1975 (P.L. 94-142), the concept of *least restrictive environment* became a goal in providing education to disabled people. While this concept is often taken as synonymous with placement in the mainstream, the law specifies that there be a continuum of alternative educational placements. This continuum must be inclusive of a range of educational placements, such as "instruction in regular classes, special classes, special schools, home instruction, and instruction in hospitals and institutions." The law also specifies that this continuum make provision for supplementary services to be provided in conjunction with regular class placement. While P.L. 94-142 applies primarily to children, section 504 of the Rehabilitation Act of 1973, as amended in 1974 (P.L. 98-516), provides for extension of mainstreaming to the postsecondary environment.

Deaf students attending the National Technical Institute for the Deaf (NTID) at the Rochester Institute of Technology (RIT) have a variety of curricular, co-curricular and supportive services to assist

in functioning, academically and socially, in ways that best meet individual preferences. For example, they can study in an environment composed predominantly of deaf people in the college of NTID or composed predominantly of hearing people at RIT. Given appropriate prerequisite preparation, deaf students can enter a curriculum with hearing students in one of nine RIT colleges immediately upon entry, matriculate in the college of NTID with other deaf students and later transfer to an RIT college, or take courses at NTID and an RIT college concurrently. Finally, students can matriculate in separate classes for deaf students at NTID, complete their program of study there and graduate.

These various opportunities can be categorized into three different educational placements:

- During their matriculation, deaf students have registered only in majors offered through the college of NTID. These students take most of their classes only with other deaf students. This placement category will be called the *separate classes* group.

- During their matriculation, deaf students have registered in majors both in

the college of NTID and in at least one of the other colleges of RIT. This placement category will be referred to as the *mixed* group.

- During their matriculation, deaf students have registered in majors only in colleges of RIT. This placement category will be referred to as the *mainstreamed* group.

The above three categories provide a way of evaluating students who pursue a variety of educational options available at RIT.

The purpose of this paper is to present data relating to the following questions:

- Do the skills of students in the placement categories listed above differ significantly?

- What are the graduation rates for students in these different categories?

- What are the occupational levels of students who have graduated from the various categories?

Method

Subjects. The subjects for this study consisted of the cohort of deaf students who entered RIT under NTID sponsorship from 1976 through the fall of 1980. Since the length of time to a degree for

deaf people at RIT is at least 4 years, this cohort consists principally of students who have completed their studies. The cohort of students who entered in the 5 years from 1976 to 1980 yielded a total pool of 1,644 subjects; 74.8 percent (N=1,229) of the students were in the *separate classes* group, 21.8 percent (N=358) in the *mixed* group and 3.5 percent (N=57) in the *mainstreamed* group.

Analysis. The data for this study will be presented under a number of classifications: persistence in college, entering achievement and communication skill levels, and accommodation in the world of work. For each of the above areas, students will be compared across the three placement categories defined previously, and by their status when exiting the NTID/RIT educational environment—received a bachelor degree, received a sub bachelor degree (AAS, diploma or certificate), or withdrew.

Results

Persistence in College. This section of the paper addresses the issue of survival of deaf students in the NTID/RIT environment. Of the 1,644 students, 824 (52.5 percent) graduated,¹ 747 (45.5 percent) withdrew, and 33 (2 percent)² continued to be enrolled at the time of this writing. Overall, this attrition rate (45.5 percent) is comparable to other public colleges with liberal admission standards (Beal and Noel, 1980).

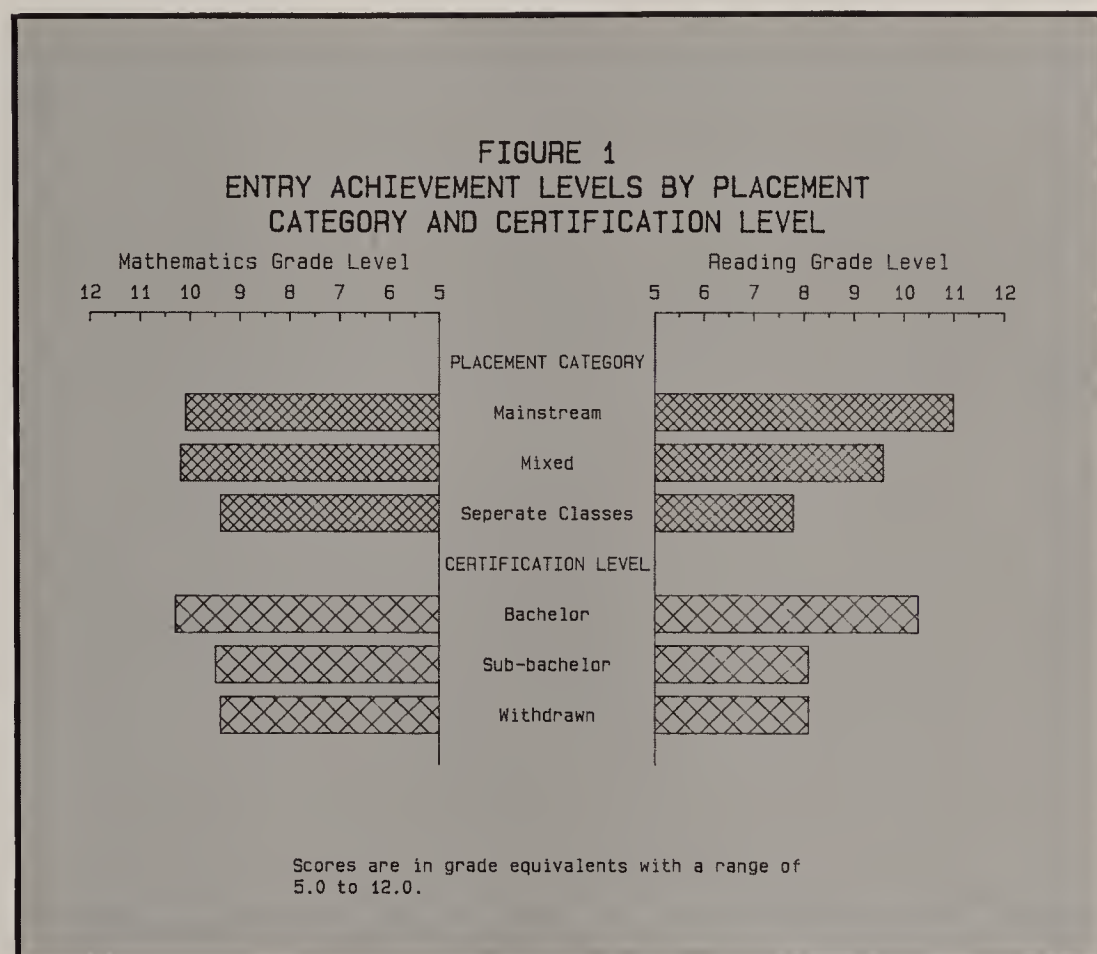
Attrition rates are considerably different for students who are in the mixed and mainstreamed categories than for those in the separate classes category. For the special classes category the attrition rate is 50.2 percent, while it is 31.6 percent and 28.1 percent for the mixed and mainstreamed categories, respectively. The literature (Breland, 1979) indicates that there is generally better retention in those institutions that accept more academically able students. Deaf students in the mixed and mainstreamed groups are academically more prepared for col-

lege, and thus have lower attrition rates. More concerning this matter will be presented in the next section of this paper.

Achievement. In the previous section, it was shown that there are differences in the rates of attrition among the placement categories. Results of other studies (Breland, 1981, Ragosta and Harrison, 1985) suggest that students who have better skills have lower rates of attrition than those with poorer skills. Figure 1 presents a summary of the achievement levels of deaf students upon admission to RIT by

in reading ability among the three placement categories. The differences for mathematics are not nearly as great.

Figure 1 also summarizes the achievement results by emphasizing the differences between the degree attainments and entering basic achievement skills of students. What is interesting is the fact that deaf students receiving the bachelor's degree have generally homogeneous skills in reading and mathematics, while the students in the other areas have a considerable gap in achievement levels bet-

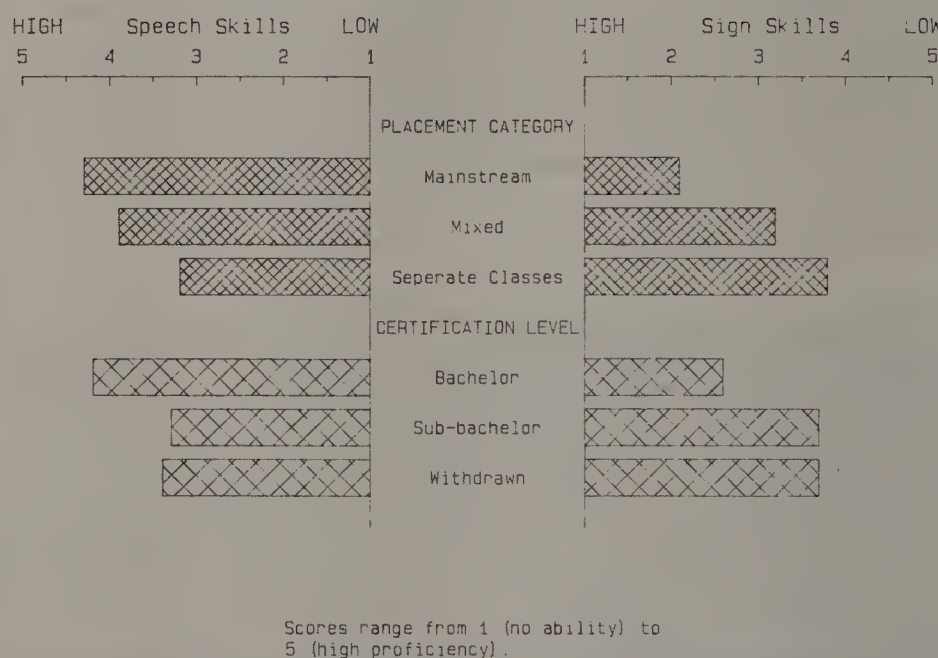


placement category. Two measures were used to evaluate academic achievement: the *Mathematics Concepts* subtest from the *Stanford Achievement Test* (Madden, et. al., 1972), and the *Reading Comprehension* subtest from the *California Achievement Test—Junior High Level* (Tiegs and Clark, 1964). The results in Figure 1 demonstrate the large differences

between mathematics and reading.

Communication. A severe to profound hearing impairment most often results in handicapping effects in the area of communication. Figure 2 indicates differences among the three placement categories in speech skills, and ability to use sign language at entry to NTID/RIT. Generally, students in the mixed and mainstream-

FIGURE 2
ENTRY COMMUNICATION SKILLS BY PLACEMENT
CATEGORY AND CERTIFICATION LEVEL



ed groups have better speech skills but relatively poorer sign skills than the students in the separate classes group. It is interesting that the students who depend most upon the interpreter for receiving information in the classroom (those in the mainstreamed group) have the poorest sign language skills. It must be remembered, however, that the scores presented are entry level skills, and it can be assumed that the sign language skills of the students improve significantly during matriculation.

Figure 2 also summarizes the results of communication skills by level of certification. Students who receive a bachelor degree have better speech skills and poorer sign skills at entry than students achieving associate degrees or certificates and diplomas. These differences should not be interpreted to mean that students with better speech skills necessarily have a better chance at achieving a higher level

of certification. Research has indicated that speech skills do little to predict degree attainment—reading and language ability are the skills most predictive of college level achievement. While there appears to be a relationship, the relationship between speech skills and degree attainment is probably not a causal one.

Accommodation in the World of Work

The previous sections of this report have concentrated on how students entering NTID from 1976 to 1980 have performed within the RIT environment. This section provides information on how deaf RIT graduates are accommodated in the world of work. Data are taken from the annual NTID *Alumni Feedback Questionnaire* (Welsh, 1986) which is sent to all graduates. Of the 864 graduates in this study, data from the *Alumni Feedback Questionnaire* were available on 345 students (40 percent) during the past 5

years. While the questionnaire contains many data elements, this study reports data about salary (gross weekly earnings) and occupational classification (provided by the U.S. Bureau of the Census) at the time the questionnaire was completed. Since the questionnaire is sent only to graduates, there are no data available about students who did not complete certification requirements (withdrawals).

Occupational Level. To report about occupational level of graduates from the entering classes of 1976 through 1980 it was necessary to group job types using a classification scheme. The scale used for this classification has been derived by categorizing the job classification of graduates into the six areas shown in the following table. While it is recognized that these categories tend to be ordinal, an assumption of continuity from "Professional" (6) to "Service" (1) has been made to derive mean values for each of the groupings used in this study. However, because of the ordinal nature of the data the reader is cautioned against inferring any correlational meaning from these results and should not go beyond the use of descriptive statistics when

Classification of Job Type into Six Categories of Occupational Level

Classification	Description
6	Professional/Managerial
5	Technical/Sales
4	Precision Production/Crafts
3	Operator/Fabricators/Labor
2	Farming/Forestry/Fishing
1	Service

generalizing from these data.

Figure 3 presents the mean job classifications for the graduates by category and degree received. The effect of level of certification on job classification is clear. The higher the degree the better job the graduate typically holds. It must be cautioned that degree level does not, in itself, determine the type of job. There are many factors influencing choice of a job, including motivation and conscious choice. The result may be that there is little direct relationship to the level of degree of an individual. However, the relationship between degree received and job type is clear—people with bachelor's degrees tend to have professional level jobs, while those with associate degrees tend to have technical and sales kinds of jobs, and those with certificates and diplomas have precision and skilled types of jobs.

Earnings of Graduates. In addition to the job classifications of graduates, the *Alumni Feedback Questionnaire (AFQ)* collects information about the earnings of graduates. Earnings are reported as weekly salary before deductions, and have been converted for this paper into 1985 dollars. In order to increase the number of reported salaries, data from the *AFQ* for the past five administrations have been used. For example, if the student reported a salary for 1983, but did not answer the *AFQ* in 1984 and 1985, this last reported salary was multiplied by the 1984 Consumer Price Index increase to arrive at a 1984 salary; the 1984 calculated salary was then multiplied by the 1985 Consumer Price Index increase to arrive at a salary for 1985. In this way, we were able to significantly increase the number of graduates in this study.

Figure 3 summarizes the salaries of graduates who entered from 1976 to 1980. The figures support the results that bachelor degree holders earn more money than associate degree, certificate or diploma recipients. It is clear that a higher

level of certification influences the earning potential of NTID graduates. While placement category did not have as strong a relationship with job level or salary, there is certainly a trend in favor of higher degree levels.

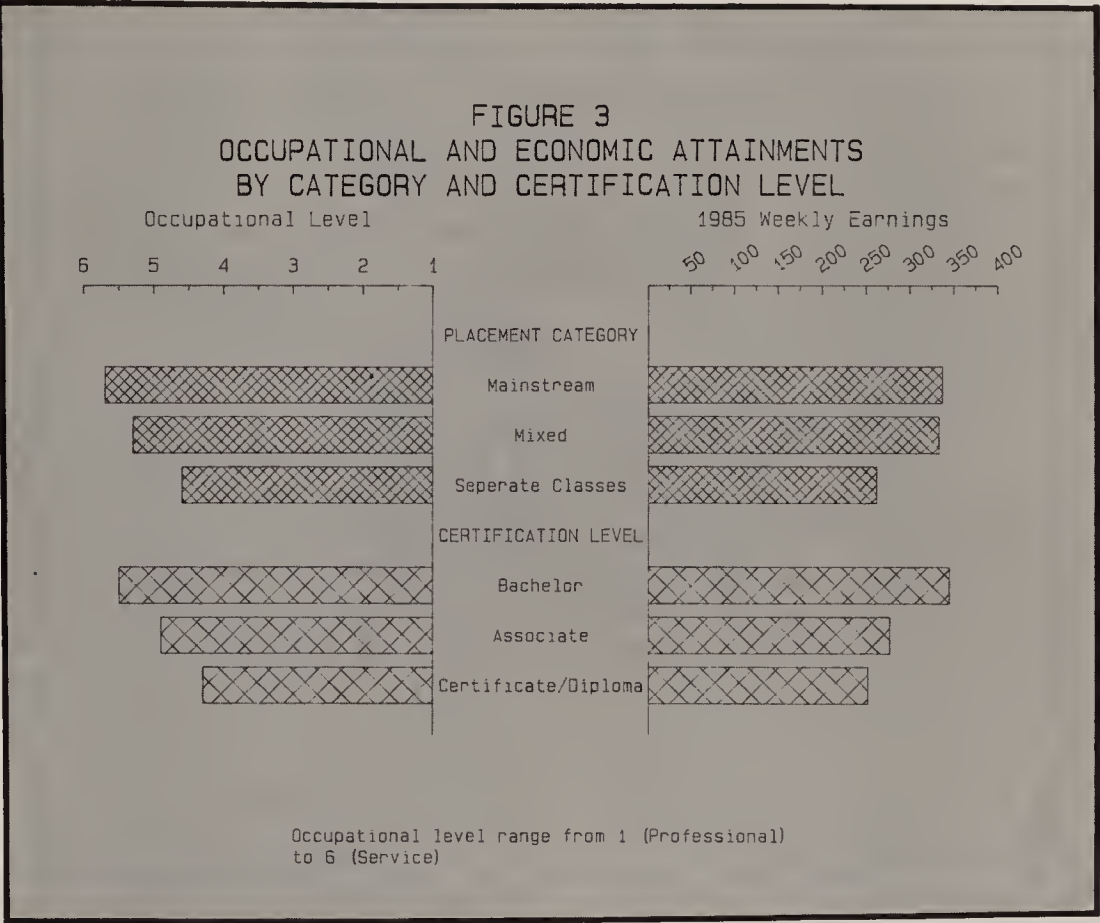
It is unfortunate that similar data are not available on students who have withdrawn. However, MacLeod and Welsh (1982) reported that median weekly salary for graduates was \$266.00, while for withdrawn students it was \$235.00. They also indicate that the employment rate was 93 percent for graduates, as com-

by the institute, concurrent with the degree, affords skills and credentials with which to effectively compete in the work environment."

Conclusions

Three educational environments at RIT were operationally defined:

- Registration only in majors in the college of NTID.
- Registration in majors in both NTID and other colleges of RIT.
- Registration only in majors in the



pared to 83 percent for withdrawn students, and that 82 percent of graduates had white collar jobs while this was true for only 50 percent of the withdrawals. MacLeod and Welsh conclude that the data "implies that a degree from RIT makes a difference. It additionally indicates that the special training provided

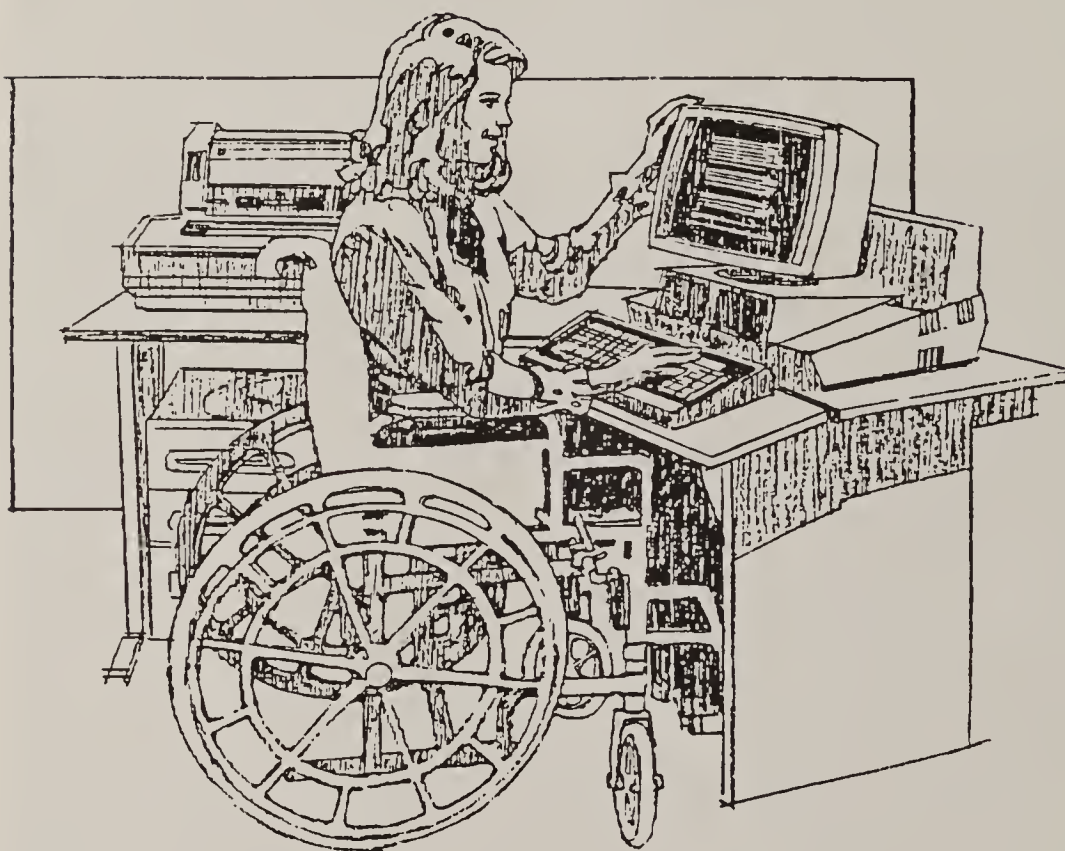
other colleges of RIT.

These three classifications permitted the authors to explore the characteristics of students enrolled and their success in the NTID/RIT environment and in the world of work after graduation.

The major finding from the study is
(Continued on page 28.)

Independent Living: Public Policy Issues

Carol R. Denson, Ph.D.



As a reader of this journal, you are probably familiar with the idea of independent living (IL), but have you ever found yourself in a situation where you were at a loss for words to explain to the uninitiated just what this important concept is all about? Perhaps you have said that IL is a program, a center, a peer counseling approach to coping with disability, a philosophy, or a concept; but clearly IL is all of these disparate entities and much more besides.

The ability to define IL may seem to be a rather unimportant matter, but that is not the case. How IL is defined, interpreted and implemented are all critical issues which affect funding allocations and service delivery modalities that directly impact upon the equality of life for people who are disabled.

The focus of this article will address the fundamental issues of IL and will present a basis for an aware implementation of public policy. But first, a discussion of the background of in-

dependent living and the current legislation relating to it will be presented.

The Background of Independent Living

IL is variously a concept, a policy, a set of community-based services and programs, and a civil rights movement. In this piece, it is used as a social-political term representing the rights of disabled people to be an integral part of society. Independent living is the opportunity to actively participate in the social, economic and political processes; it means being free to enjoy the same rights and options available to the able-bodied. It is the freedom to participate in the community fully and to have access to housing, transportation, health care, employment, and education. Interpreted in this manner, IL is reflective of a self-determined and self-directed lifestyle which permits the individual to make meaningful choices and decisions. In a true IL environment, the degree of a person's autonomy is not adversely affected by the need for assistive devices or other supports for physical functioning.

Philosophically or conceptually, IL relates to the mind-set or psychological orientation of the individual, which, in turn, is interdependent with a set of complex relationships between the individual, his/her physical capacities, support networks, and environmental systems. Under IL, the goals generally are the same as those a democratic

society assumes for able-bodied people; however, different means to obtain those goals may be necessary for those who are disabled.

The concept of IL was created in order to study the needs of people who are severely disabled from a non-pathological view point and to remove barriers (both physical and psychological) from their environment. It developed as a social movement within the civil rights efforts during the 1970's, and it is perceived by many as the change agent necessary to achieve equal participation in society for the disabled. However, others perceive IL as a potential threat to the *status quo* of the established vocational rehabilitation system (Crewe & Zola, 1983). From varying points of view, two categorical definitions of IL have evolved; one is based on the rehabilitation process (DeJong, 1979), the other on the consumer movement.

In the rehabilitation model, the attainment of IL is generally determined by the individual's ability to perform certain activities required by daily living. The implication of this model is that IL is achievable with a skills training program designed to correct or compensate for the limitations imposed on the person due to the disability. IL, in this model, has also come to mean the ability to have access and the opportunity to participate in society. Yet the subtlety of the word "ability" implies a goal-oriented approach to the entire process—something, therefore, measurable. The criteria established for the measurement are based on success as determined by normative standards of the able-bodied; therefore, there are no provisions for failure within this model. Rehabilitation professionals tend to address IL as independent living rehabilitation, and the literature reflects how IL is incorporated into the traditional vocational rehabilitation process.

The history of IL as a consumer

movement, on the other hand, is based on the efforts of disabled people to seek their rights in society (DeJong, 1979). The values of the movement are:

- **Consumer Sovereignty:** This concept means that disabled persons (consumers of services), *not* professionals, are the best judges of their own interests; therefore, they should ultimately determine how services are organized on their behalf. Consumer sovereignty is the most important value of the IL movement because it forms the psychological basis for the rest of the values. Disabled people, as consumers, consider themselves to be their own best advocates and feel that they are best qualified to organize and operate their own programs. The objective of this value is *not* continued isolation and dependency, but rather the freedom to choose which services best fulfill the needs and interests of the individual.

- **Self-Reliance:** Disabled people must rely primarily on their own resources and ingenuity to acquire the rights and benefits to which they are entitled. Self-reliance is also central to IL. Without this attribute, the disabled person will probably not achieve normalization. The self-reliant mindset contrasts sharply with the traditional "sick-role" model which exempts the person from normal social activities and from any responsibilities due to "illness." In the later situation, the individual is not expected to become better by sheer will and desire (DeJong, 1979). Rather, the individual attains a childlike status, one of dependency. The traditional medical and rehabilitation models, as perceived by members of the IL movement, are based on this "sick-role" model. From this viewpoint, the problems are identified within the person and his/her disability. In contrast, the IL movement identifies the problem as largely environmental and systemic.

- **Political and Economic Rights:** Disabled people are entitled to freely

pursue their interests in various political and economic areas (DeJong, 1979).

In 1978 Stoddard reported the following quote from the consumer advocate Judy Heuman from the Center for IL in Berkeley, California:

"To us, independence does not mean doing things physically alone. It means being able to make independent decisions. It is a mind process not contingent upon a 'normal body.' "

Independent Living means freedom from institutionalization, from isolation, and, more importantly, it means being able to choose *where* and *how* one wishes to live. But the gap between the existence of human services and the lack of alternatives from which to choose is one of the major problems for severely disabled people (Crewe & Zola, 1983). In order for IL to be fully implemented in our society, a comprehensive service delivery system which would include financial support, physical modification services, attendant care, rehabilitation, and consumer rights is needed.

Emerging Programs

In addition to addressing theoretical conflicts and issues of IL, programs at the community level are developing and expanding as part of the movement. According to Ross (1979), the IL movement has been effective in initiating "... the process of translating into reality the theory that, given appropriate supportive services, accessible environments, and pertinent information and skills, severely disabled individuals may actively participate in all aspects of society." The actual process of turning theory into practice as a form of service delivery is defined by the Federal Office for Handicapped Individuals as:

"A community based program which has substantial consumer involvement, provides directly or coordinates indirectly through referral those services necessary to assist severely disabled individuals to increase self-determination

and to minimize unnecessary dependence on others.”

An array of services exists under IL. Those most likely to be included are housing, attendant care, readers and/or interpreters, and information and referral about goods and related IL services. Moreover, direct or indirect services through coordination or referral that may be part of the programs are transportation, peer counseling, advocacy, political action, IL skills training, equipment maintenance and repair, and social and recreational services.

According to Frieden (1978), IL programs may be viewed as differing from one another in service settings, service delivery, goal orientation, funding sources, and disability type served. The nature of individual programs evolving depends on the individual consumers involved, their local needs and program goals and the availability of resources. Basically, three program models can be identified: live-in residential; transitional residential; and community-based services which are nonresidential. The residential programs provide housing or live-in situations for extended periods of time along with the necessary support services. The transitional programs are characterized as facilitators of movement from institutional settings or restrictive living environments to those which are comparatively less restrictive. The community-based service programs, generally called “centers,” are in the strict sense consumer-controlled and operated community-based nonresidential programs. Each of the various programs is appropriate to serving different needs of severely disabled people.

Legislative Support and Fundament IL Issues

Two public laws which directly support IL are the Rehabilitation Acts of 1973 and 1978. The 1973 act established that it was illegal to discriminate against

Consumer sovereignty is the most important value of the independent living movement because it forms the psychological basis for the rest of the values.

disabled people who are “otherwise qualified”; consequently, programs which received federal funding were mandated to comply with the law by providing access and/or accommodation to the needs of disabled people who qualified for their programs or employment or lose their federal funding. Accessibility to the community has been greatly increased as a direct result of this legislation.

In 1978, under Public Law 95-602, Title VII, Comprehensive Services for IL mandated for the first time that the vocational rehabilitation system establish programs for their clients that extend beyond traditional counseling into housing, with appropriate modification for very severely disabled people, and other services that will enhance the ability of a handicapped person to live independently and function within his or her family and community.

This piece of legislation represents a significant change in the 68-year history of federal rehabilitation legislation. Prior to the 1978 amendments, the Rehabilitation Act authorized services and allocated funds to provide services only to disabled persons who had a vocational potential. Never before Title VII had there been a requirement for the vocational rehabilitation system to provide comprehensive services for IL for people who are severely disabled, and who may not have the potential for employment.

While reviewing the history of the development of IL opportunities, it becomes evident that, even in a pluralistic society, it is necessary to make laws to mandate citizen access and participation. Title VII (Public Law

95-602), which was assigned into law on November 6, 1978, is one of the most recent illustrations of the need for legislation in this area. The law mandates the inclusion of a target population currently excluded and isolated from the mainstream of society due to physical and/or mental abilities that deviate from what society constitutes as normal. Since Title VII, severely disabled consumers are guaranteed to have access to the means of development, implementation and evaluation of public goods and services which are for their consumption. However, what appeared with the passage of Title VII to be a positive step in the integration of severely disabled citizens into society became, in practice, a questionable reality.

Title VII mandates consumer participation in all aspects of IL programs; philosophically, there is little challenge over this concept. But questions arise that are related to the interpretation of the law:

- How is IL defined?
- How should IL services be planned?
- What are the eligibility criteria for participation in IL programs?
- How is consumer participation to be accomplished?

Additional questions which emerge relate to defining “consumer” and the extent to which it is appropriate for parents and professionals to represent certain disabled people in the decision making process. Furthermore, issues currently under debate within the public and private rehabilitation network system address whether IL is really new or simply a bureaucratic manipulation

created to move the resources around within the existing human services available for disabled people. Moreover, although legislation has been passed which posed that rights for the disabled population are absolute, those rights are actually personal in nature and tend to become reality only after political struggles.

In addition, an analysis of the legislation indicates a prevalence of two opposing points of view: On the one hand, consumer-directed centers are mandated for IL; on the other hand, it is mandated that the state vocational rehabilitation agency be designated the principal grantee agency. This could result in a conflict of interest between the old, established practices of working with disabled people and the newer ideas which need to be put in place. Paradoxically, there are additional provisions written in the law that require termination of services if there is no significant improvement in the condition of the person involved. But the very nature of the condition of many severely disabled people is such that vital services are required to help them maintain a stable level of IL; withdrawal of such services could, in fact, significantly reduce a person's ability to live independently.

Traditionally, the service providers—not consumers—are seen as vital to the decision making process, production and organizational aspects of service delivery systems. However, upon analysis within the framework of operational citizenship, the service providers are, in fact, the operational citizens. They have access and availability of resources to enter into all phases of the process at will; consumption benefits are realized in ongoing support of the system itself. This group generally supports the expansion of programs, rarely challenging or questioning the logic (or lack of logic) of the underpinnings for legislation. Usually, their

only challenge rests in competition of funds for individual programs.

Further analysis of the way in which the law was written allows for an interpretation such that the controlling power structure is retained within the traditional system. For example, the shape of the power struggle over IL is illustrated under the choices available to establish Part B of Title VII, where state agencies have the first option to apply as the grantee agency. If the state agency opts not to apply as the grantee, non-profit agencies or organizations may

community life. Also, there is a lack of systematic empirical research which identifies factors supporting independence among severely disabled people. There is a need for research in two distinct but related areas: understanding environmental, systemic and attitudinal barriers; and studying disability from a nonpathological viewpoint. This research will be extremely important because it will form the decision basis from which public policy will be established.

Due to the lack of information per-

Disabled people, as consumers, consider themselves to be their own best advocates and feel that they are best qualified to organize and operate their own programs.

then apply directly to the federal agency for the available funds. To date, the majority of vocational rehabilitation agencies have chosen to be designated as the grantee agency; up to 20 percent of the grant may be retained by the grantee agency to cover the cost of IL administrative responsibilities. Additionally, the 1984 amendments to the 1978 act appropriated funds to implement Part A of Title VII by state agencies to implement statewide IL delivery systems. The 1986 amendments to the act expanded the federal commitment to IL by mandating the development of program standards, and establishing long-term financial commitment to IL to operate under the auspices of vocational rehabilitation.

Generic Issues

Given the restrictive attitudes and limited perceptions of society, it is not surprising to discover that research has not addressed the extent to which situational and systemic barriers impede the integration of disabled people into com-

maintaining to the daily lives of people who are disabled, public policy response to date has been founded on research pertaining to organizational analysis and aggregate statistical data collected from a variety of governmental agencies using traditional research methodologies. However, people who are severely disabled have highly unique and individualized needs; therefore, it is difficult to apply conventional service delivery systems, program evaluation models and citizen participation techniques to this population.

It is also difficult to do research among disabled people because, as the literature reflects, there is even a lack of agreement regarding the size and distribution, according to disability type, of this population in general. The statistical information assigns the population into categories, but this process does not present a clear picture of the population nor does it offer an understanding of its characteristics. Categories and numbers vary from

(Continued on page 30.)

Providing a College Education

from a study using income

Lifetime earnings are one measure of the value of a college education. As an alternative to using questionnaires to obtain earnings information from graduates of a publicly supported college, cooperation was sought from the U.S. Internal Revenue Service (IRS). The IRS was able to provide frequency distributions of wages and salaries of the college's graduates categorized by the independent variables: year of graduation, gender, degree, and major. Only grouped data were provided and in such a fashion that individuals could not be identified. The findings indicate that such data can be used to evaluate the effects of achieving a college degree both in terms of individual earnings, and increased lifetime contributions to the Federal Treasury.

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Higher education in the United States is most often a joint financial undertaking of the individual and society. *Individual* contributions include direct expenditure of personal funds for tuition, books, board, travel, etc. There is also an opportunity cost in the form of foregone income that would have resulted from the individual working during the period of matriculation. *Societal* investments take the form of contributions made by the college or university from endowment and other funds, grants in aid and direct governmental support to the education of the individual.

The National Technical Institute for the Deaf (NTID) at the Rochester Institute of Technology (RIT) was given the task by Congress in 1965 (P.L. 89-36) of helping to reverse the chronically depressed employment conditions of deaf people in the United States. As a result of the law, the Federal Government annually appropriates funds for the education of deaf students at RIT. At NTID these costs (in

the form of appropriations from the Treasury) are approximately \$15,000.00 per student per year (1986 dollars). Questions often asked by the Congress, the Department of Education and the Office of Management and Budget concern the value of receiving a college degree, the amount of time it takes to pay back the contributions made by the government and the increased return to the Treasury resulting from investing in the college education of deaf persons.

There exists an extensive literature about the effect of degree attainment on earnings for hearing people (Taubman and Wales, 1974; Bowen, 1977, Witmer, 1978). However, until 1978 (the year in which NTID began surveying its graduates) there existed no literature about the effects of college completion for deaf people.

Like many colleges, NTID annually surveys its graduates using an *Alumni Feedback Questionnaire (AFQ)* (Welsh, 1985) designed to collect data about work



Deaf Students: Why it Pays

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and continuing educational activities of graduates. While data from the *AFQ* are useful, they are subject to at least two limiting conditions. First, the data are self-reported, and thus open to response bias. Second (and related), data are available only for those graduates who choose to respond to the survey. No data can be collected on those who choose not to respond or those graduates of unknown address. Because of these problems, an alternative data source was sought that could increase the number of alumni about whom data could be gathered and reduce or eliminate the response bias associated with self-reported questionnaire data.

In 1981, the Social Security Administration (SSA) was contacted. Since this agency collects work force data on most U.S. citizens, it was anticipated that their files could be tapped for information about deaf RIT graduates. As a result, the SSA provided several analyses of earnings. While the data were useful, their incompleteness (the SSA did not have earnings data on approximately 15 to 20 percent of the graduates)¹ resulted in NTID's considering other alternatives.

As a result of interaction with the SSA, contact was made with several persons at the Statistics of Income Division of the Internal Revenue Service (IRS). These persons indicated that the IRS could provide selected and grouped analyses of in-

come data for NTID alumni but under strict review to ensure confidentiality. The remainder of this paper will describe the use of information provided by the IRS to answer the following questions: What is the increased economic value of achieving a college degree? How much time does it take graduates to pay back the government's investment in their education? What is the return on the investment made by the government in educating deaf persons?

Method

Subjects

A computer tape, containing the social security numbers of 1,928 hearing impaired students who had graduated or withdrawn from NTID at RIT between 1968 and 1980, was sent to the IRS. Other variables also included on the tape were: year of graduation, gender, degree, and major.

Procedure

The type of information that could be obtained from the IRS was restricted by stringent confidentiality safeguards imposed by the IRS and enforced by its Disclosures and Security Division. Only grouped data were provided and in such a fashion that individuals could not be identified—cells containing fewer than three subjects were collapsed. However, the IRS was able to provide frequency

Table 1. Sample of data received from the IRS.

		SALARIES AND WAGES							
		(Midpoints of \$5,000 ranges)							
GENDER		2,500	7,500	12,500	17,500	22,500	27,500	32,500	37,500 42,500
MALE:									
N		49	53	119	154	102	55	16	7 5
TOTAL ²		.1	.4	1.5	2.7	2.3	1.5	.52	.26 .23
FEMALE:									
N		44	78	126	62	30	5	0	0 0
TOTAL		.09	.6	1.6	1.1	.7	.1	0	0 0

distributions of wages and salaries categorized by the independent variables: year of graduation, gender, degree, and major (see Table 1 for an example of the data provided). It must be noted that the reported earnings are from wages and salaries reported on W-2 forms and do not include income from other sources such as interest, consulting, self-employment, and Supplemental Security Income.

Future Earnings of Deaf Persons

Analysis of differences in earnings by degree attained is evidence of the increased value to the individual resulting from a higher level of college certification. In order to assess the accumulated earnings and tax liability of deaf alumni of RIT, it was necessary to develop a model to project growth in earnings over a 40-year period of employment.³ Since the growth in earnings of deaf college graduates is unknown, we applied a rate of growth equal to the average increase in earnings of the U.S. population during the 30-year period preceding 1982. Using 1982 income data provided by the IRS and an average annual growth rate of 5.2 percent (Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, 1986), the amount of earnings for a lifetime of work was estimated (Table 2).

Calculating Tax Liability

Calculating the amount of tax liability permits assessing the amount of dollars contributed to the Federal Treasury during the working years. For the purpose of this paper all taxes were estimated using 1982 rates. Information provided by the Internal Revenue Service (*Statistics of Income*, 1982) was used for estimating income tax payments. Social Security contributions were calculated by multiplying reported wages and salaries by 14.3 percent. In addition .5 percent of wages and salaries was calculated to account for excise tax contributions. The sum of these three sources of revenue was used to estimate total lifetime federal taxes paid by the graduates of NTID at RIT (see Table 2—columns 4 through 7).

Educational Costs

It is necessary to calculate educational costs to determine how much of the NTID at RIT appropriation is directly related to the education of students. These costs are calculated using a methodology developed by Bowen (1980) and supported by the National Center for Higher Education Management Systems (NCHEMS). Educational costs include "current expenditures after excluding outlays for organized research and public

service, and a prorated share of overhead cost attributable to research and public service, and outlays for the operation of auxiliary enterprises such as residence halls, dining facilities, student unions, and teaching hospitals. What remains after these exclusions is current expenditures for the education of students." (p. 115) For the 1982 academic year these costs totaled \$4,443.00 per quarter of instruction. Since the average length of time to graduation at NTID is 16.5 quarters for bachelor degree recipients, the average educational cost to the Federal Government is \$73,330.00. Similarly, sub-baccalaureate degree recipients take an average of 9.84 quarters at a total cost of \$43,738.00, and those that withdraw cost the government \$17,152.00 for attending an average of 3.86 quarters. We will use these figures to calculate the amount of time it takes a student to repay the government's investment in their education.

Results

The Effect of Degree

Estimated earnings and tax liabilities over a 40-year period of work are shown in Table 2. Data estimates are presented for students who did not graduate, those who graduated with a sub-baccalaureate degree (diploma or associate degree), and those who graduated with a bachelor degree. Graduates at the sub-baccalaureate level earn 38 percent more than those not graduating, and those earning a bachelor degree earn 32 percent more than those graduating with less than a bachelor degree. Bachelor degree recipients also earn 83 percent more than students not graduating.

Data provided by the IRS show that, in 1982, 55 percent of withdrawals earn less than \$10,000, while 55 percent of sub-baccalaureate graduates earn in the \$10,000-\$19,999 range. The distribution for bachelor degree graduates is dramatically different. Nearly 47 percent

Table 2. Estimated income, tax contributions, and payback of federal expenditure for education at NTID for a 40-year period of time after graduation.

YEARS IN LABOR FORCE (1)	WAGES (2)	ADJUSTED GROSS INCOME (3)	INCOME TAX (4)	FICA (5)	EXCISE TAX (6)	TOTAL TAXES (7)	PAYBACK TO TREASURY (8)
WITHDREW WITHOUT GRADUATING							*(17,152)
1	9,097	9,379	483	1,301	45	1,829	(15,323)
5	11,142	11,487	925	1,593	56	2,574	(6,054)
10	14,356	14,801	1,191	2,053	72	3,316	8,966
15	18,498	19,071	2,158	2,645	92	4,895	31,140
20	23,834	24,573	3,123	3,408	119	6,651	61,266
25	30,710	31,662	5,199	4,381	154	9,744	104,016
30	39,569	40,796	6,957	5,658	198	12,813	161,142
35	50,984	52,564	11,581	7,291	255	19,127	238,540
40	65,692	67,728	14,922	9,394	328	24,644	350,167
SUB-BACCALAUREATE GRADUATES							*(43,738)
1	12,601	12,992	1,046	1,802	63	2,911	(40,827)
5	15,434	15,912	1,800	2,207	77	4,085	(26,557)
10	19,886	20,502	2,606	2,844	99	5,549	(2,453)
15	25,623	26,417	3,890	3,664	128	7,682	30,971
20	33,014	34,038	5,589	4,721	165	10,475	77,451
25	42,539	43,857	7,479	6,083	213	13,775	139,128
30	54,810	56,509	12,450	7,838	274	20,562	227,551
35	70,622	72,811	16,042	10,099	353	26,494	347,556
40	90,995	93,816	25,387	13,012	455	38,854	523,549
BACCALAUREATE GRADUATES							*(73,330)
1	16,638	17,154	1,941	2,379	83	4,403	(68,927)
5	20,378	21,010	2,671	2,914	102	5,686	(48,608)
10	26,257	27,071	3,986	3,755	131	7,872	(14,358)
15	33,832	34,880	5,727	4,838	169	10,734	33,273
20	43,591	44,943	7,664	6,234	218	14,116	96,734
25	56,167	57,908	12,758	8,032	281	21,071	187,345
30	72,370	74,613	16,439	10,349	362	27,150	310,320
35	93,247	96,138	26,015	13,334	466	39,816	490,669
40	120,148	123,872	35,352	17,181	601	53,134	731,342

*Amount of federal contribution to education at NTID.

PUBLICATIONS & FILMS

Opportunity Knocking: The Story of Supported Employment. PACER Center, Inc., Parent Advocacy Coalition for Educational Rights, 4826 Chicago Avenue South, Minneapolis, Minnesota 55417-1055. 60 pages. Softcover, \$6.00.

Designed especially for parents of secondary students and young adults with severe disabilities, this booklet explains how supported employment programs are opening job opportunities for a new group of people. Through providing intensive and ongoing support, the programs are making possible jobs in integrated work sites for people with severe disabilities who have traditionally been excluded from regular work settings because of the inability to perform competitive work and their need for life-long support.

International Journal of Comparative Psychology. Co-sponsored by the International Society for Comparative Psychology and the University of Calabria at Cosenza, Italy. Ethel Tobach, Ph.D., editor. Human Sciences Press, Inc., 72 Fifth Avenue, New York, New York 10011-8004. Quarterly. Annual subscription—\$32.00 for individuals and \$75.00 for institutions.

This international journal, by using authors and editors from more than 20 countries, studies the evolution and development of behavior in all species, both animal and human. It investigates the relationships of people to animals and of scientific research and theory to fundamental concepts about the history and nature of humanity.

Brothers and Sisters Talk With PACER. PACER Center, Inc., Parent Advocacy Coalition for Educational Rights, 4826 Chicago Avenue South, Minneapolis,

Minnesota 55417-1055. 34 pages. Free of charge to parents of children with disabilities who live in Minnesota; \$4.00 per copy for all others.

This booklet was designed to give a voice to oftentimes unheard people — the brothers and sisters of children with handicaps. It is based on interviews with 11 siblings, ranging in age from 10 to 28.

Journal of Near-Death Studies. Sponsored by the Institute for the Advancement of Near-Death Studies. Bruce Greyson, M.D., editor. Human Sciences Press, Inc., 72 Fifth Avenue, New York, New York 10011-8004. Quarterly. Personal, \$30.00; institutions, \$76.00.

Publishes articles on near-death experiences, the empirical effects and theoretical implications of such events, and on such related phenomena for understanding human consciousness and its relationship to the life and death process.

Lifestyles: Family and Economic Issues. Charles B. Hennon, Ph.D., editor. Human Sciences Press, Inc., 72 Fifth Avenue, New York, New York 10011-8004. Successor to *Lifestyles: A Journal of Changing Patterns, Lifestyles: Family and Economic Issues*. Quarterly. Individual, \$35.00; institutions, \$79.00.

This journal is primarily dedicated to the interface of the family and its economic environment. It brings together material from a variety of fields which heighten the understanding of family consumer behavior, household division of labor and productivity, the relationship between economic and noneconomic decisions, interrelationships between work life, and other related topics.

Physical Therapy and the Pulmonary Patient: Aspects of Evaluation and Treatment. Also published as *Physical Therapy in Health Care*, Volume 1 Numbers 2/3, Winter 1986/Spring 1987. Mary C. Singleton and Eleanor F. Branch, co-editors. The Haworth Press, Inc., 12 West 32 Street, New York 10001. 99 pages. Hardcover, \$18.95, plus \$2.50 for shipping and handling.

This publication is devoted to the theme of assessment and treatment of the patient with respiratory dysfunction. Articles dealing with the use of health manpower in the care of such patients; chest assessment; physical therapy and respiratory care of the patient with spinal cord injury; care of the pediatric pulmonary patient; interpretation of arterial blood gases; and drug therapy for the patient with chronic lung disease are presented.

Aging and Rehabilitation: Advances in the State of the Art. Proceedings of a conference supported by the National Institute of Handicapped Research, U.S. Department of Education, and the National Institute of Mental Health, U.S. Department of Health and Human Services, in cooperation with the National Institute on Aging, held in Washington, D.C., in December 1984. Stanley J. Brody, J.D., M.S.W., and George E. Ruff, M.D., Editors. Springer Publishing Company, Inc., 536 Broadway, New York, New York 10012. 378 pages. Hardback, \$38.95.

General topics covered include an overview of rehabilitation and the elderly, mental health and the elderly, sensory impairment, organ impairment, and the social and environmental context.

Neurological Assessment During the First Year of Life. Claudine Amiel-Tison, M.D., and Albert Grenier, M.D. Translated by Roberta Goldberg, M.D. Oxford University Press, 200 Madison Avenue, New York, New York 10016. 197 pages. Hardback, \$32.50.

This handbook provides a systematic guide to the neurological examination of premature and full-term infants and an overview of the maturational changes that occur in premature babies as well as normal development during the first year and after.

The Brain Code: Mechanisms of Information Transfer and the Role of the Corpus Callosum. Norman D. Cook. Methuen, 29 West 35th Street, New York, New York 10001. 256 pages. Hardback, \$35.00.

This text demonstrates how currently popular topics within psychology, such as laterality, hemisphere differences and the psychology of left and right are central to further progress in understanding the human brain. It integrates the major findings of hemispheric research with the larger questions of how the brain stores and transmits information—the “brain code.” The author emphasizes how the two cerebral hemispheres communicate information over the corpus callosum, the largest single nerve tract of the human brain.

The Evaluation and Treatment of Eating Disorders. A monograph also published as the journal, **Occupational Therapy in Mental Health**, Volume 6 Number 1, Spring/Summer 1986. Diane Gibson, Editor. The Haworth Press, Inc., 28 East 22 Street, New York, New York 10010. 150 pages. Hardback, \$24.95.

This volume addresses a growing problem prevalent in hospitalized patient populations: eating disorders, including anorexia nervosa and bulimia. Presented are findings on the theories, the evaluation and the treatment of this syndrome. Among the topics the book explores are the behavioral treatment of eating disorders, characteristics and treatment of families and anorectic offspring.

Therapeutic Activities With the Impaired Elderly. A monograph also published as **Activities Adaption & Aging**, Volume 8, Numbers 3/4, 1986. Phyllis M. Foster, Editor. The Haworth Press, Inc., 28 East 22 Street, New York, New York 10010. 204 pages. Hardback, \$22.95.

This text addresses a number of issues and provides useful information on such topics as recreation and socialization programs, designing and implementing memory improvement classes, sign language activities, and leisure education and counseling.

The Human Edge: Information Technology and Helping People. Gunther R. Geiss, Ph.D., Narayan Viswanathan, DSW, Editors. The Haworth Press, 28 East 22 Street, New York, New York 10010. 428 pages. Hardback, \$29.95; paperback, \$19.95.

The editors provide knowledge about the developments and progress in information technology and the transfer of this technology into helping people and into social work practice and education. Information is derived from the Information Technology and Social Work Practice Conference sponsored by the Lois and Samuel Silberman Fund at the Wye Plantation of the Aspen Institute of Humanistic Studies in June 1984.

Science and Service in Mental Retardation. Proceedings of the Seventh Congress of the International Association for the Scientific Study of Mental Deficiency, New Delhi, India, March 24-28, 1985. Edited by Joseph M. Berg. Technical editor, Jean M. DeJong. Methuen, 29 West 35th Street, New York, New York 10001. 475 pages. Hardback, \$45.

The chapters in this collection present data and observations which are of both academic interest and practical relevance, offering current information and insights on many facets of mental retardation, including biomedical, psychological, social, and educational issues.

Dictionary of Psychotherapy. Sue Walrond-Skinner. Methuen, Inc., 29 West 35th Street, New York, New York 10001. 379 pages. Hardback, \$59.95.

This is a substantial and comprehensive reference work, covering the major theorists, theories and approaches to be found in the field of psychotherapy. Classical concepts from the behavioral and psychoanalytical approaches are included, and special emphasis is placed on the techniques and methods belonging to the newer psychotherapies. This dictionary contains some 850 entries, each giving encyclopedic information, critical evaluation, guides to further reading, and cross references to related entries.

Applied Rehabilitation Counseling. T. F. Riggat, Ed.D., Dennis R. Maki, Ph.D., and Arnold W. Wolf, Ph.D., C.R.C., Editors. Springer Publishing Company, 536 Broadway, New York, New York 10012. 404 pages. Paperback, \$26.95.

Community Re-Entry for Head Injured Adults. Mark Ylvisaker and Eva Marie Gobble. College-Hill Press, Little, Brown and Company, 4284 41st Street, San Diego, California 92105. 484 pages. Hardcover, \$36.00.

The authors have attempted to bring together in one volume information and treatment perspectives that focus in a practical way on those needs of traumatically brain injured patients that relate directly to their successful reintegration into community life. Included is a forward by Marilyn Price Spivack, founder and executive director of the National Head Injury Foundation.

Unlocking Potential: College and other Choices for Learning Disabled People. A Step-By-Step Guide. Barbara Scheiber and Jeanne Talpers. Adler and Adler, Publishers, Inc., 4550 Montgomery Avenue, Bethesda, Maryland 20814. 195 pages. Paperback, \$12.95

Guidance is offered in choosing the right college, the admissions process, methods of diagnosis and assessment, overcoming academic hurdles—reading, writing, math, study skills, memory, organization—use of new technology, and strategies for successful personal and social adjustment. Included are ideas that work, tips and techniques that students can use to compensate for their disabilities, and innovative teaching approaches for educators.

The Renaissance of the State Psychiatric System. A special issue of *Psychiatric Quarterly*. Volume 57, Numbers 3 and 4. Fall/Winter 1985. Edited by Steven E. Katz, M.D. Human Sciences Press Warehouse, Building 424, Raritan Center, 80 Northfield Avenue, Edison, New Jersey 08817. 257 pages. \$9.95.

REPORT RESOURCES

ATTENDING TO AMERICA: PERSONAL ASSISTANCE FOR INDEPENDENT LIVING. Executive Summary and Report of the National Survey of Attendant Services Programs in the United States. Simi Litvak, Ph.D., O.T.R., Hale Zukas and Judith E. Heumann, M.P.H. World Institute on Disability (WID), 1720 Oregon Street, Berkeley, California 94703. Report, \$20.00; executive summary, \$5.00.

This report (170 pages), and the accompanying executive summary (30 pages), are products of WID's recent national survey of publicly funded attendant services programs.

Among its findings, the report shows that even though there is no existing federal policy, every state recognizes attendant services as a major need. While \$1.6 billion was spent on publicly funded attendant service programs in 1984-85, research indicates the money could have been more effectively spent, resulting in higher quality services for a greater number of people.

TRANSITIONING PERSONS WITH MODERATE AND SEVERE DISABILITIES FROM SCHOOL TO ADULTHOOD: WHAT MAKES IT WORK? Jill Wheeler. Materials Development Center, Stout Vocational Rehabilitation Institute, School of Education and Human Services, University of Wisconsin-Stout, Menomonie, Wisconsin 54751. 88 pages. Softcover, \$10.75.

The author states that transitioning skills can be learned by all rehabilitation "stake holders." Stake holders include parents, professionals, funding providers, and people with disabilities. She examines the laws and barriers that have created the

current patchwork of transitional programs and discusses how a firm basis for transition can and must be built. Further, she outlines the step-by-step planning that leads to effective transitions from school to competitive employment.

THE ISSUE PAPERS: THIRD NATIONAL FORUM ON ISSUES IN VOCATIONAL ASSESSMENT. Sponsored by the Vocational Evaluation and Work Adjustment Association. Ronald R. Fry, editor. Materials Development Center, Stout Vocational Rehabilitation Institute, School of Education and Human Services, University of Wisconsin-Stout, Menomonie, Wisconsin 54751. 259 pages. Softcover, \$17.00.

In this publication, 48 of the papers presented at the Third National Forum on Issues in Vocational Assessment, September 10-12, 1987, in Clearwater Beach, Florida, are reproduced. The forum was a response to a need for professionals in vocational evaluation/assessment to share information, challenge ideas and stimulate thinking regarding the profession and practice of vocational evaluation.

USING PRIVATE REHABILITATION VENDORS: SELECTION CRITERIA AND PERFORMANCE STANDARDS TO ENSURE QUALITY. Gail E. Schwartz and Michael E. Carbine. Washington Business Group on Health Institute for Rehabilitation and Disability Management, 102 Irving Street, N.W., Washington, D.C. 20010. (202) 877-1196.

This workbook is intended to help companies become knowledgeable, sophisticated purchasers of rehabilitation

vendor services. It includes details on how to develop an effective rehabilitation program and techniques for ensuring a good match between the company and the vendor, as well as case examples from companies which have developed ways to manage vendor services.

MARKETING REHABILITATION FACILITY PRODUCTS AND SERVICES. Christopher A. Smith and Goodwill Industries of America, Inc. Materials Development Center, Stout Vocational Rehabilitation Institute, School of Education and Human Services, University of Wisconsin-Stout, Menomonie, Wisconsin 54751. 156 pages, Softcover, \$18.95.

This publication has been developed to provide basic marketing concepts within the framework of a recommended planning process. Facility administrators may use the information to tailor marketing activities to their specific planning needs.

JOB COACHING IN SUPPORTED WORK PROGRAMS. Diane C. Fadely, M.Ed., CWA. Materials Development Center, Stout Vocational Rehabilitation Institute, School of Education and Human Services, University of Wisconsin-Stout, Menomonie, Wisconsin 54751. 158 pages. Softcover, \$16.00.

This publication has been written to support job coaches. It discusses the many roles and functions of job coaches in a variety of employment settings. Techniques and procedures that have been found to be effective in job coaching practice are discussed.

THE FUTURE OF WORK FOR DISABLED PEOPLE: EMPLOYMENT AND THE NEW TECHNOLOGY. Paper edition, 108 pages (AFB catalog number PVR141),

\$10. Audio cassette edition (AFB catalog number PVR145), \$10. Also include \$2.50 for postage and handling. American Foundation for the Blind, 15 West 16th Street, New York, New York 10011.

This is a compilation of papers presented at a May 1986 symposium providing discussions on new technology and its impact in the workplace.

REHABILITATION OF LOW VISION INDIVIDUALS. Laura Edwards and colleagues at the Pennsylvania College of Optometry. 99 pages. A volume in the *Rehabilitation Research Review* series published by the National Rehabilitation Information Center (NARIC), 4407 Eighth Street, N.E., Washington, D.C. 20017. The charge for each *Review* is 5 cents a page with a \$5.00 minimum. Requestors obtain a listing of all *Reviews* available.

This *Review* is organized according to the following categories: adult and youth services, infants and children, elderly, and service delivery issues. Under each category, topics such as assessment, psychosocial adjustment, medical treatments, mobility training, and optical aids are covered. The bibliography contains over 450 citations grouped under major subject areas.

STRESS AND COPING IN FAMILIES HAVING A MEMBER WITH A DEVELOPMENTAL DISABILITY. Ann Turnbull, Ed.D., and colleagues at the University of Kansas. 49 pages. A volume in the *Rehabilitation Research Review* series published by the National Rehabilitation Information Center (NARIC), 4407 Eighth Street, N.E., Washington, D.C. 20017. The charge for each *Review* is

5 cents a page with a \$5.00 minimum. Requestors obtain a listing of all *Reviews* available.

This *Review* looks at the effectiveness of various coping strategies and services and discusses how to reduce the negative and enhance the positive aspects of these strategies. The authors' discussion of the literature includes sources and types of stress, family and community resources, family perception of personal control of the future, and the meaning ascribed by the family to the event of the disability.

EMPLOYER-BASED DISABILITY MANAGEMENT AND REHABILITATION INITIATIVES. Donald Galvin, Ph.D., National Rehabilitation Hospital, and Gail Schwartz, Institute for Rehabilitation and Disability Management. 79 pages. A volume in the *Rehabilitation Research Review* series published by the National Rehabilitation Information Center (NARIC), 4407 Eighth Street, N.E., Washington, D.C. 20017. The charge for each *Review* is 5 cents a page with a \$5.00 minimum. Requestors obtain a listing of all *Reviews* available.

In addressing employer-based disability management, the authors reviewed a wide variety of literature on subjects ranging from health promotion and wellness to insurance and benefit management. They note that the bulk of the available literature is descriptive, not empirically-based, and they identify factors which complicate an understanding of the research. Dr. Galvin and Ms. Schwartz note that "employer initiatives in disability management and rehabilitation will proceed whether the professional discipline of rehabilitation is on board or not."



NEWS, NOTES, ANNOUNCEMENTS

Susan S. Suter Named RSA Commissioner

The President announced on May 15 his intention to nominate Susan S. Suter to be Commissioner of the Rehabilitation Services Administration at the Department of Education. She succeeds Justin W. Dart, Jr.

Since 1984, Ms. Suter has been Director for the Illinois Department of Rehabilitation Services in Springfield. Prior to this, she was Executive Associate Director of the Illinois Department of Rehabilitation Services (1982-84); State Coordinator for the International Year of Disabled Persons for the State of Illinois, Office of the Governor (1981-82); Director of Community Services for the Illinois Developmental Disabilities Advocacy Authority (I.D.D.A.A.) (1980-81); and Developmental Disabilities Planning Specialist for the Governor's Planning Council on Developmental Disabilities (1979-80).

RSA Funds Training for Deafness Rehab

San Diego State University (SDSU) has received RSA funding to establish a program for "Post Employment Training in the Administration of Deafness Rehabilitation."

The intent of SDSU's program is to provide post employment professional training to: (1) state coordinators of services to deaf clients (SCD's); (2) rehabilitation counselors with deaf clients (RCD's) who aspire to administrative positions within state rehabilitation agencies, and (3) program directors and coordinators of RSA supported and/or affiliated programs and agencies providing

services to deaf clients.

This training activity is intended to benefit those professionals who are seeking an opportunity to develop and/or upgrade administrative skills, and to serve as a career ladder for those individuals interested in assuming management positions in state rehabilitation agencies and other programs serving deaf clients.

The training program consists of a six-week summer training program conducted at San Diego State University. The summer course will consist of nine graduate level units taught in seminar format. The summer curriculum will consist of the following areas: marketing; personnel management; fiscal management issues; program evaluation; legal and legislative issues; and political and ethical practices.

Upon completion of the summer program, the trainee will return to his/her sponsoring agency to complete a two-semester internship/fieldwork experience. The on-site projects to be completed will be decided upon through agreement of the field site supervisor, the trainee and the SDSU faculty. When all program requirements are completed, the trainee will be awarded a Certificate of Completion in the area of Administration of Deafness Rehabilitation.

For qualified applicants, fellowships will be made available on a limited basis. The fellowships will cover all tuition and fees, a per diem allowance to cover meals and lodging while attending the six-week summer program, and round trip airfare from the trainee's home agency to San Diego State University.

Anyone interested in attending should submit a letter of interest and a current resume to: Ron Jacobs, Ph.D., Director, Deafness Rehabilitation Programs, San Diego State University, ARPE NE-279,

San Diego, CA 92182-0163. (619) 265-6407 (V/TDD) (619) 265-6406 (Messages - V/TDD).

Former Commissioner Honored by PCEH

The President's Committee on Employment of the Handicapped has named Justin W. Dart, Jr., a well known advocate for the rights of people with disabilities and former commissioner of the Rehabilitation Services Administration, as the 1988 Handicapped American of the Year.

Mr. Dart, disabled by polio at 18, received the President's Trophy, America's highest honor given a person with a disability, on May 4 during the opening session of the committee's 3-day annual meeting at the Washington Hilton Hotel in Washington, D.C. The award was presented by Committee Chairman Harold Russell and a White House representative.

The 57-year-old advocate won the award for his continuous battle against the inequalities that people with disabilities face and for his determination in overcoming his disability.

As Vice Chairperson of the National Council on the Handicapped from 1982-1985, Mr. Dart was instrumental in writing *Towards Independence*, a report from the National Council to the President and Congress outlining the need of people with disabilities.

Before serving on the National Council, he was Chairman of the Texas Governor's Committee for Persons with Disabilities (1980-1985) and continues to serve as a member of the Texas Council on Disabilities.

For more than 30 years Mr. Dart has been active in the human and disability rights movement. In the 1950's he organized the first "integration club" at the then segregated University of Houston, promoted students' rights in Mexico, women's right in Japan, and

disability rights throughout the United States, Mexico, Japan, and Vietnam. Over the years, he and his wife, Yoshiko, have opened their home to 77 foster children, many of them disabled, providing them with love and the opportunity to advance through education and employment.

Training to Begin in Developing Nations for Braille Repair

In a cooperative effort to address the needs of blind people worldwide, Helen Keller International (HKI), Perkins School for the Blind, the Royal Commonwealth Society for the Blind, and Christoffel-Blindenmission are joining forces to train and equip third world technicians to repair Perkins braille machines. These braille machines are the primary writing tool for blind people in both developed and developing nations.

180,000 Perkins braille machines have been distributed throughout the world by Perkins School and Howe Press, the manufacturers of the braille machines, since production began in 1951. This device, which enables the user to write Braille quickly and read back while writing, is an important asset for blind students and professionals; but several thousand Perkins braille machines now sit idle in developing countries, because no local technicians have been trained in their repair and spare parts are not to be found.

"This is a common fate of equipment brought from developed to developing countries," said Lawrence Campbell of Helen Keller International, who initiated the cooperative venture. "HKI and Perkins want to ensure that wherever Perkins braille machines are available, so is the technology to keep them working."

A training program for Asian braille technicians will take place in Kuala Lumpur, Malaysia, from May 23 to June 4, with the cooperation of the Malaysian

National Council for the Blind. In Nairobi, Kenya, African technicians will be trained August 15 to 30 at the Kenya Institute for Special Education. All trainees will also receive a supply of spare parts and necessary equipment.

These training sessions mark the beginning of a commitment by HKI and Perkins School to make braille technology universal, thereby helping increase the opportunities of blind people worldwide. Further training programs should follow as needed.

Helen Keller International (formerly the American Foundation for Overseas Blind) has been promoting the welfare of blind people since 1915, when the agency was founded to rehabilitate soldiers blinded in World War I. HKI expanded its activities into blindness prevention in the 1970's, pioneering in vitamin A programs to prevent nutritional blindness. Today, the agency works only in developing countries, where the vast majority of the world's blind people live.

Woodrow Wilson Center Awarded PVA Grant

The Paralyzed Veterans of America (PVA) Spinal Cord Injury Education and Training Foundation (ETF) has awarded a grant to the Woodrow Wilson Rehabilitation Center in Fishersville, Virginia, for a model training program for physical therapists.

The 2-year project, entitled "Spinal Cord Injury Education and Training in Action," will be under the direction of Diane S. Huss, P.T., education and training supervisor for the Department of Physical Therapy at the Woodrow Wilson Rehabilitation Center. The project will create a model training program for physical therapists who care for spinal cord injured patients; it includes the development of manuals and videotape programs.

ETF was established by PVA to pro-

vide grant support to institutions, agencies, organizations, and individuals. This support is used to assure the quality of care in spinal cord injury and disease by improving the abilities of health professionals who provide that care and for patient and family education.

PVA Awards Grant to Loyola University

The Paralyzed Veterans of America Spinal Cord Research Foundation (SCRF) has awarded a grant to the Loyola University School of Medicine, in Maywood, Illinois, to study the role of fetal spinal cord tissue in regeneration.

The project, entitled, "The Use of Fetal Neuronal Transplants in the Repair of Spinal Cord Injury," is directed by Anthony J. Castro, Ph.D., and is designed to explore the functional effect of rat fetal spinal cord tissue, when grafted into the spinal cord of newborn rats, on growth and regeneration. Research will focus on behavioral and electrophysiological testing and detailed anatomical analysis.

PVA's Spinal Cord Research Foundation funds research grants and fellowships for the cure and care of persons with spinal cord injury. Funding falls into four categories: basic science research grants focusing on a cure for spinal cord injury; applied medical grants leading to improved care and rehabilitation; technological grants for innovative equipment design; and design and development grants to assist in transferring technology from the laboratory to the marketplace.

The Paralyzed Veterans of America, a veterans' service organization chartered by Congress, has for more than 40 years served the needs of its members, all of whom have catastrophic paralysis caused by spinal cord injury or disease. PVA is funded through private donations and neither seeks nor receives government funds.

Private Agencies Combat Disease with \$1.5 B

New figures released recently by the National Health Council show that 26 leading voluntary health organizations spent a record \$1.5 billion in their 1986 fiscal years to fight disease and disability.

Nearly half of the funds, or \$695 million, was dedicated to community services, according to the new data, which were compiled by the council from its members' most recent audited financial reports for national headquarters and chapter offices combined. The next largest amount—\$320 million—went for public education, while \$297 million was spent on patient services, \$174 million funded medical research, and \$60 million supported education of health professionals.

The voluntary health agencies received \$1.2 billion or 57 percent of their total revenue from direct public contributions. Other funds came from program service fees, contract payments, and interest on investments, making total revenue amount to \$2 billion. The \$1.5 billion in program expenses represented 82 percent of total expenses, which were \$1.9 billion. Management and fund raising costs accounted for the balance.

The National Health Council provides nongovernmental regulatory programs for voluntary health agencies and maintains rigorous standards for their governance, operations, fund raising, and financial accounting. Membership in the council indicates peer affirmation of conformity to the standards.

Founded in 1920, the council is a private, nonprofit membership association of 76 national organizations. In addition to the voluntary health agencies, the membership includes professional and membership associations, other nonprofit groups, business companies, and Federal Government agencies. Its mission is to enable members to work together effec-

tively to promote the health of all Americans, with a strong sense of human concern especially for vulnerable people.

More detailed financial figures are available in the full report and copies may be obtained for \$1 each, prepaid, from the National Health Council, 622 Third Avenue, New York, NY 10017.

Computer Conference Scheduled November 2-4

The Fourth Annual International Conference, "Computer Technology/Special Education/Rehabilitation," is scheduled November 2-4, 1988, at California State University, Northridge.

For further information, contact: Dr. Harry J. Murphy, CSUN Office of Disabled Student Services, 18111 Nordhoff Street, Northridge, California 91330. Telephone: (818) 885-2578.

Clinic Focuses on Role of Physical Activity

An international clinic, "Focusing on the Potential, Not the Disability," is scheduled for September 26-27, 1988, on the campus of George Mason University in Fairfax, Virginia, near Washington, D.C. The clinic will examine the theme, "From Rehabilitation to Independent Community Function: The Role of Physical Activity," as it relates to fitness, education, employment, recreation, the arts, sports, and community linkages. Project coordinator for the clinic is the YMCA of the USA, Office of Special Populations, and site coordinator is George Mason University.

The keynote speaker will be Erling Stordahl, founder of the Beitstolen Health Sports Center in Norway and internationally known for his innovative approaches to the design of fitness, sports

and recreation programs for people with disabilities. Other speakers will include Edward Eckenhoff, President/CEO, National Rehabilitation Hospital; Margaret Giannini, M.D., Director, Rehabilitation, Research and Development Services, Veterans Administration; Julian Stein, Ph.D., George Mason University; Harold Wilke, D.D., L.H.D., the Caring Congregation; and Solon Cousins, Executive Director, YMCA of the USA. The clinic will also feature a Resource Fair and a Media Viewing.

Of particular interest to special educators, rehabilitation specialists, recreation and physical therapists, and disabled people, the clinic is open to anyone interested in fitness and physical activity for people with disabilities.

Topics which will be addressed by speakers and panelists will include recent trends in the use of physical activities in rehabilitation, the individual's role in transition, and networking for independence. Audience participation and reaction will be encouraged and is expected to be lively.

Along with the YMCA, Office of Special Populations, the clinic is co-sponsored by the American Alliance for Health, Physical Education, Recreation and Dance, the President's Committee on Employment of the Handicapped, the President's Council on Physical Fitness and Sports, the U.S. Olympic Committee on Sports for the Disabled, and George Mason University.

In conjunction with the clinic, a one-day Project Fit (Fitness Involving Teens, Physical Activities and Fitness for Teens with Disabilities) workshop will be held on September 28 at George Mason University. A special program of the YMCA of the USA, Office of Special Populations, Project Fit provides training to professionals and volunteers who use physical activities as integration and transitioning tools for teens. Cost for this workshop will be \$10.

Fees for the clinic are \$95; \$10 for

students and \$17.50 for the banquet. Moderately priced hotel accommodations in the area are available. For more information or to register for the clinic, call or write YMCA of the USA, Special Populations, PO Box 1781, Longview, WA 98632, (206) 677-0243.

Supported Employment Fact Sheet Released

An information and resource guide to supported employment has been published by the President's Committee on Employment of the Handicapped. The publication, *Fact Sheet On: Supported Employment* defines supported employment and examines the elements that are required for any vocational program to be considered supported employment. The four-page document explains some vocational methods commonly used in service delivery, and cites resources for additional information.

Authorized by the Rehabilitation Act Amendments of 1986, supported employment is intended for individuals with severe disabilities who have not been competitively employed and workers who can no longer perform prior jobs because of a severe disability.

Supported employment is possible through interagency collaboration. Coordination rests with state and local departments of vocational rehabilitation, education, mental health, mental retardation, and developmental disabilities, and other funding sources and service providers.

Copies are available at no charge from the President's Committee on Employment of the Handicapped, 1111 20th Street NW, Suite 636, Washington, D.C. 20036.



Apprenticeship

(Continued from page 3.)

deaf, are provided interpreters while attending the college. In addition to regular tests, grades are based on classroom participation, homework and level of independence. OJT, which has a 12,000-hour minimum requirement, is conducted in an industrial setting with state-of-the-art equipment. After meeting the requirements of the program, apprentices are awarded a certificate as a journeyman (C) craftsman.

Efforts are made to set up the machinery so that disabled students need not rely on the hearing faculty; other employees are expected to develop a sign language capability. Mr. Griel observes that disabled employees try very hard to perform well—they concentrate on their work, are reliable, are accepted by other employees, can operate any machine, and have not contributed to any loss in productivity. "The employer gains by getting a qualified employee."

In the NAIIEC survey of state apprenticeship councils/agencies, Puerto Rico reported the highest number of disabled apprentices (84) among their apprenticeship population. This is due to the aggressive pursuit of apprenticeship opportunities for disabled people by the Right to Employment Administration (REA) and the subsidy funding provided to participating employers by the Program of Vocational Rehabilitation (PVR), Department of Social Services.

Under Puerto Rico's plan, the REA files all the paperwork, makes the eligibility determination and prepares the apprenticeship agreements for apprentices and employers. If the apprentice is disabled, the PVR may pay the employer, upon written agreement, a monthly subsidy for the training arrangement. The PVR also provides medical services for the disabled apprentice, job accommodation assistance for the employer, support services such as tutoring, instructional and physical modifications, or minor changes

in job rotations, as well as monitoring and evaluation of the training.

Disabled apprentice programs are underway at sites such as the Tapiceria Wonderville Company in Trujillo Alto, which does upholstery work on chairs, couches and automobile car seats. In a 2-year 4,000-hour apprenticeship, disabled apprentices learn how to operate industrial sewing machines and use hand tools and materials which are part of the trade. Manso Auto Repair in the San Juan area has been hiring disabled apprentices for the past 10 years. The 4,000-hour automobile mechanic apprenticeship program includes 288 hours of related instruction at local vocational-technical schools. In Hato Rey, the Ramallo Brothers Printing, Inc., sponsors apprenticeships in two occupations: offset press operator and paste up worker. The company has accepted apprentice referrals from vocational rehabilitation. Upon completion of the program, apprentices become regular employees of the company.

District Lodge 751 of the International Association of Machinists and Aerospace Workers (IAMAW), AFL-CIO, operates programs in the Seattle, Washington, labor market area under the umbrella of IAM/CARES to assist handicapped individuals find employment, especially in the aerospace, machine tool and air transport industries.

The lodge considers the option of apprenticeship for disabled persons in its programs—Projects With Industry (PWI), Transitional Services of Handicapped Youth, and IAM/JOBS.

An example of disabled people participating in an apprenticeship is the Boeing Company program designed for those preparing to be a machinist, tool and die maker, model maker, and tool and cutter grinder. Special learning needs of disabled apprentices are accommodated by careful planning and assessment, job readiness training, job development and modification, and placement and follow-

up support services. Apprentices attend classes of related technical instruction at the Renton Vocational-Technical Institute.

Another apprenticeship program which the Seattle IAM/CARES program works with is the Joint Apprenticeship Committee (JAC) for Painting, Decorating, and Drywall. The JAC will use the IAM/CARES office as a resource for applicants with disabilities. The committee feels that increased communication among service agencies, people in the trades, organized labor, and management will improve opportunities for disabled people to enter apprenticeship programs.

Implications and Recommendations

There are five areas that need to be addressed in improving the level of participation of disabled people in apprenticeship:

- *Public Relations*—A strong effort must be made to inform employers, education and rehabilitation professionals, union representatives, parents of disabled students, disabled people, and the general public of the opportunities for disabled people in apprenticeship.

- *Interorganizational Coordination and Communication*—There is a need for further coordination and communication among apprenticeship councils, special education, vocational rehabilitation, vocational special needs, union representatives, and employers at all levels if disabled people are to benefit fully from apprenticeship.

- *Transition Services*—Apprenticeship (and pre-apprenticeship) programs can be effective ways of transitioning disabled students from school to work. Apprenticeship should be used much more extensively for this purpose. Those programs serving disabled people need to be more aggressive in making referrals to apprenticeship programs and be advocates in locating sponsors for the apprenticeable trades.

- *Policy and Program Development*

Initiatives—These initiatives need to emphasize thorough dissemination of existing legislation; improving the accessibility of occupations in the apprenticeship system; and marketing/promotional strategies that focus on the incentives for both employers and disabled people to participate.

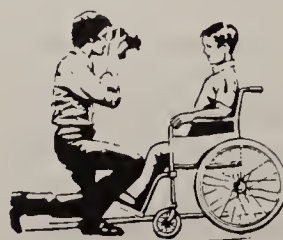
- *Future Research Efforts*—Research in this area should identify and document apprenticeships that have served disabled people successfully and examine incentives and disincentives of apprenticeship and hiring people with disabilities.

Apprenticeship is a unique, voluntary training system through which people acquire skills and knowledge. It offers a broad base of productive career opportunities for disabled people. However, more information is clearly needed if the full potential for participation by disabled people in apprenticeship is to be realized. It will take a consortium of effort among professionals in the public and private sectors working with people with disabilities in responding to this need.

Resource

More information on improving opportunities for disabled students' participation in apprenticeship programs is available from the National Association for Industry-Education Cooperation, 235 Hendricks Boulevard, Buffalo, New York 14226.

Dr. Clark is president and chief executive officer of the National Association for Industry-Education Cooperation in Buffalo, New York. Dr. Hughes is a project consultant from Newport News, Virginia.



Success

(Continued from page 11.)

that the students served in the three environments appear to represent three distinct groups in terms of the variables evaluated in this study.

The separate classes group, at entry, had the lowest academic achievement and oral/aural communication skills of the three groups. They entered college with an overall achievement level of 8.7 on the *Stanford Achievement Tests* and could use speech and hearing in a limited way for communication. On the other hand, this group demonstrated the best sign language skills of any group—able to receive most of any message communicated through the medium of sign language. Their level of achievement and difficulty in using traditional methods of communication—speech, hearing and reading—in the college classroom demands a specialized set of educational delivery systems. It can be assumed that these students cannot compete at the rapid pace of a linguistically based mainstreamed college classroom.

The separate classes group has a higher attrition rate than the other groups. This higher attrition results from difficulties this group of students has in a postsecondary level educational environment. Fifty percent of entering students in this group withdraw from NTID without certification. While this rate seems high when considered by itself, it must be evaluated in the context of the level of preparation these students have for postsecondary study, and in the context of other public 2-year colleges with liberal admission standards. According to a national study by Beal and Noel (1980), public community colleges with liberal admission standards have attrition rates of about 60 percent for a cohort of entering students.

The mixed group presents a different picture than the separate classes group. From an achievement and communication perspective this group of students has better academic preparation (almost 10th

grade overall), better oral/aural communication skills, and sign language skills that would permit them to understand about half of a communicated message. The most significant finding about this group is that they take a considerable number of credits from both the college of NTID and the other colleges of RIT. It is especially interesting that this group takes a relatively large number of credits from the communication and general education areas of NTID. This course work is probably the result of the need to improve basic skills so they may enter majors in the other colleges of RIT. These findings are especially noteworthy when one considers that more than half of the degrees granted to this group were granted through the other colleges of RIT.

Interesting also is the fact that the attrition rate for this group is significantly lower than that of the separate classes group. This is probably because students in this group had better academic preparation than the separate classes group, and thus generally achieve better at NTID/RIT. It is possible that the mixed group of students, because of better secondary preparation, can make better use of the remedial programs offered by the college of NTID.

The mainstreamed group represents students who have skills closer to those of their hearing peers than the skills possessed by the separated classes or mixed groups. Their average achievement level is better than 10th grade; they have excellent oral/aural skills, but poor sign language abilities. This high level of academic preparation permits them to compete well with their hearing peers. This is evidenced by an attrition rate of 28 percent for the entering cohort. This rate is probably also a result of the support services provided hearing impaired students registered in the other colleges of RIT. In a sense, this is the group who probably could, to some extent, survive in a college setting, given similar support

services. Certainly the separate classes group, and most probably the mixed group, would not complete a program for certification in a regular college, even one with traditional support services of tutoring, notetaking and interpreting. The reason for this is that the separate classes group requires major alterations and additions to the traditional methods of delivering education at the postsecondary level and the mixed group requires extensive remediation before being admitted to studies in the fully mainstreamed environment of RIT.

Overall, it can be said that at least 97 percent (the separate classes and mixed groups) of deaf students at RIT require extensive remedial education, systematic alterations to the delivery of instruction and other services offered through the college of NTID to enable them to receive a college level degree from the Rochester Institute of Technology. Because of the relationship between degree level attainment and earnings after graduation, students must be actively encouraged to seek the highest degree possible in their field of study. More students who exit with only an AAS degree must be encouraged to extend their stay to achieve the BS degree, and more who receive the diploma must be encouraged to achieve the associate degree. Such additional preparation will most certainly improve the postgraduation job levels of alumni.

Dr. Walter is Associate Director and Dr. Welsh is Research Associate, Office of Postsecondary Career Studies and Institutional Research, NTID, RIT, Rochester, New York.

Footnotes

1. 348 (40 percent) received certificates or diplomas, 382 (44 percent) received associate degrees, 12 (15 percent) received bachelor degrees, and two persons received master degrees.

2. The majority of these students are enrolled in other RIT colleges in pursuit

of a bachelor degree.

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Independent Living

(Continued from page 15.)

study to study according to how disability is defined, how the counting process is conducted and for what purpose the study was made. Moreover, use of traditional survey methods suggests overcounting due to the multiple problems experienced by people who are disabled. For example, someone who was born blind and later became paralyzed from an injury would be counted twice in most studies. A critical assessment of the state of the literature also indicates that we know little about the following:

- putting support systems together from the perspective of the individual;
- contributing factors to facilitating independence; and
- evaluating the effectiveness of service agencies which contribute to the process of IL.

Conclusion

Since the beginning of the IL movement in the early 1970s, research has begun to emerge which has added to the understanding of the implications of severe disability. In 1979, DeJong defined a research context for IL which provided a framework to study severe disability; but since then, there is limited work reported. Traditional approaches to define and observe a nontraditional situation may be ineffective. It is apparent that factors which support independence among severely disabled people have not, to date, been studied in a systematic empirical manner. Brooks (1983, p.292) stresses the need for a framework for research which studies the disabled person's life experience directly through field work and observations. In addition, current research does not address the extent to which situational and systemic barriers impede the integration of severely disabled people into community life; yet public policy is founded on research per-

taining to organizational analysis and aggregate statistical data collected from government agencies using traditional research methodologies.

In order for real change to take place, more is required than a favorable public intent and adjustments to provide accessibility, such as curb cuts, barrier-free transportation and unrestricted public and private buildings. Indeed, policy must be formulated that will meet the day-to-day needs of severely disabled people to live an independent life. Studies must be done to discover how to put support systems together from the perspective of the individual; and it is important that the information gap be closed.

The failure in communication between disabled people and those who serve their needs is, in part, due to the fact that policies and programs have been agency oriented. In past practice, the last people to be consulted by most agencies about what is needed to facilitate IL have been disabled people; in the future, they should be the very *first* consulted. After all, who knows more about how IL can be accomplished than those who strive daily to meet personal goals within a very frustrating environment? In considering future plans for IL, let's consult the real experts—those who have spent many years studying the situation from the confines of a limited world—the disabled citizens themselves.

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Journal of Poetry Therapy. Nicholas Mazza, Ph.D., editor. Sponsored by the National Association of Poetry Therapy. Human Sciences Press, Inc., 72 Fifth Avenue, New York, New York 10011-8004. Individual, \$30.00. Institution, \$70.00.

This quarterly journal is devoted to use of poetics as psychotherapeutic modality in health, mental health, education, and related clinical settings. The journal publishes original articles which focus primarily on the appreciation and strategic use of language in therapy, poetic approaches involving metaphor and imagery, and the use of various literary forms, audiovisual aids and other biblio-therapeutic materials.

Designed to meet the needs of clinicians, researchers, educators, and professionals concerned with the therapeutic value of poetry, literature and other related creative arts, this publication's scope and special features include a research and clinical exchange, news and notes, poetic resources, book reviews, and abstracts of current literature and original poetry.

Education Pays

(Continued from page 19.)

earn \$15,000-\$25,000, and another 22 percent earn more than this amount.

Payback to Federal Treasury

Table 2 contains the estimated cumulative payback to the Federal Treasury (column 8) as a result of increased earnings over a 40-year period of time (Column 2 and 3).⁴ The accumulated taxes at the end of 40 years can be used as an index of the return to the Treasury resulting from federal support of the college education of deaf persons. Deaf bachelor degree graduates of RIT will return twice as much to the Federal Treasury as persons not receiving a degree, even though it takes more than 10 of 40 working years to repay the costs of their education. Sub-baccalaureate degree recipients take 13 years to repay the cost of their education; nonetheless they will return 48 percent more to the Treasury during the lifetime of work than will those who receive no degree. The differences just described are illustrated in Table 2.

Return on Investment

The issue of return on investments is somewhat broader than that of payback, actually encompassing it to a large degree. Return on investment is calculated by dividing the total taxes NTID alumni return to the Treasury by the total taxes paid by deaf people who do not attend NTID. These calculations are best described by an example.

The Federal Government expends \$73,330.00 to educate a bachelor's degree graduate (see Table 2). The same graduate will, over the course of a lifetime, return—*after paying back the original investment*—\$731,342.00. Subtracting from this the amount a nongraduate⁵ (who costs the government nothing) would pay in taxes—\$367,319.00—yields an increased return of \$364,023.00. This represents 4.96 times the original investment and also ensures that taxes paid will

be nearly double those paid if the investment is *not* made. Similarly, a sub-baccalaureate graduate would return \$165,230.00 more than a nongraduate, which represents 3.57 times the original investment and a 45 percent increase over taxes paid in the absence of the investment.

Conclusions

Implications

Overall, the results from this study support the value of providing for education of deaf college students. The differences in earnings resulting from higher education for deaf persons have been

tage lies in the fact that the statistics generated from the analyses can be compared with national statistics computed from the same data base.

Since many states have income tax systems, it is possible that institutions could perform similar analyses using state income tax records. Studies could be designed to assess not only the return of an investment, such as the one reported here, but also to evaluate the economic impact of higher education on a particular state or region.

Limitations

There are a number of limitations of the data which must be pointed out.

Deaf bachelor degree graduates of RIT will return twice as much to the Federal Treasury as persons not receiving a degree . . .

documented by Welsh and Walter (1986a) for deaf students and by Bowen (1978) for hearing students. However, this paper takes the analysis a step further by determining the net contributions to the Federal Treasury resulting from the federal appropriations for NTID. Even with the amount invested in their education deducted from cumulative lifetime tax returns, graduates of NTID return significantly more to the Treasury than do persons who do not receive a college education. Additionally, the higher the degree a person attains, the greater the lifetime contribution to the Federal Treasury.

Governmental tax records clearly can be used for evaluating the economic benefits of a college education without compromising confidentiality of individual earnings records. In addition, use of such records is superior to questionnaire data because of the unobtrusive nature in which the data are collected. This fact permits the researcher to use larger data sets than would be possible through questionnaires. Another advan-

● Projections of future earnings for deaf graduates are based on known rates of growth in earnings for the national population over the past 30 years. This same rate of growth was used to estimate growth for the next 40 years. No adjustments for future economic, social or occupational trends were taken into account in the projections.

● All estimates of tax rates were based on rates in effect in 1982. Projections do not account for the effects of the current changes in income tax legislation, future changes in social security taxation, or other alterations in federal levies.

● The reader should exercise caution in attributing the differences in earnings solely to the effects of achieving a college education. Certainly, variables such as parental socio-economic status, amount of hearing loss, intellectual abilities, *etc.*, have an effect on earnings of all people.

As a result of these limitations, the reader is cautioned against using the above data as other than illustrative of the impact of a college degree on earnings and federal tax collections. The data

should not be used to estimate comparative economic returns to the government. For example, one should not compare the returns to the Treasury defined here with returns derived by investing similar dollars in some form of securities—such as stocks or bonds. Such comparisons are inappropriate since the original legislation did not stipulate this as a requirement, but rather the general economic and occupational improvement of deaf persons. Witmer (1978) presents this caution as follows:

“And anyone who invests in higher education merely to realize a monetary return will have missed the central point that the products of higher education—which are as varied as the students and their programs of study—promote the general welfare through the development of whole persons to the limit of their capacities. Monetary rates of return merely indicate market valuations of some of the resultant products in the world of work, which almost never match the valuation of any one person.” (p. 57)

All we are saying is that the government more than recovers the cost of educating deaf persons at RIT; we do *not* attempt to attach an ultimate value to the phenomenon of higher education.

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Footnotes

1. The SSA reports zero earnings for all people in non-FICA paying jobs, including: federal employees; some state workers; and some people in education. It is estimated that 15 to 20 percent of deaf RIT graduates are employed in such professions.

2. The IRS reported the exact totals. In the interest of space we report the total amounts in millions of dollars.

3. The average age of graduates from NTID is between 23 and 25 at the point of graduation.

4. In the interest of space, Table 2 contains data only for 5-year increments.

5. Research at NTID (MacLeod-Gallinger, 1985; Walter, MacLeod-Gallinger and Stuckless, 1987) indicates that students withdrawing earn about the same amount each year as deaf high school graduates not attending college. Since we do not have IRS data for deaf high school graduates, we chose to use the earnings of those withdrawing from NTID as a surrogate for the earnings of high school graduates who did not attend college.

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Heavy Drinking: The Myth of Alcoholism as a Disease. Herbert Fingarette. University of California Press, 2120 Berkeley Way, Berkeley, California 94720. 166 pages. Hardcover, \$16.95.

The author, a professor of philosophy at the University of California, Santa Barbara, argues against the popular belief that alcoholism is a “disease” and states that scientific evidence supports that there are many different patterns of heavy drinking related to social, economic, biological, and mental conditions. Dr. Fingarette’s research points out, he contends, that the alcoholic can be better treated by programs which are geared to changing behavior.

Highest Rate of MS Found in Michigan

You are more likely to get Multiple Sclerosis (MS) in Michigan than in any other state in the union.

That is one of the unusual facts about this disease which affects about 8,000 Michiganians.

MS strikes from age 15 to 50. In Michigan, for every 100,000 people, 116 will contract MS.

One reason why Michigan holds the unsought title of national MS leader could lie in its cold climate. The National Multiple Sclerosis Society reports the disease is most frequently found in colder climates.

RIT Hearing Impaired Forge Art Careers

Hearing impaired students are increasingly entering leading art careers as directors, designers, production managers, and artists, according to experts at Rochester Institute of Technology (RIT).

RIT is the home of the National Technical Institute for the Deaf (NTID), the world's largest technological college for deaf students. Created by Congress and funded primarily by the U.S. Department of Education, NTID represents the nation's first effort to educate large numbers of deaf students on a college campus planned principally for hearing students.

"The word is getting out to parents and vocational rehabilitation counselors that art is a viable career for the hearing impaired," says Jack Slutzky, art professor. "The number of hearing impaired students entering RIT's art programs has doubled within the last year, with 45 deaf students in RIT's College of Fine and Applied Arts, 65 percent of whom are majoring in graphic design.

"No other college has the volume or

the variety of art programs for hearing impaired students, from graphic and computer graphic design to woodworking and furniture design," says Dr. Thomas Raco, assistant dean at NTID and director of NTID's School of Visual Communications. "Historically, art careers were thought to be dead-end jobs for the hearing impaired. However, NTID put together viable programs and support resources and the College of Fine and Applied Arts made itself accessible for tutors, notetakers, interpreters, and advisers. These efforts have allowed our students to take leading art positions when they graduate."

Xerox Corp., IBM, Eastman Kodak Co., Martin Marietta Manned Space Systems, Hallmark, Benton and Bowles, and Maratz, Inc., recruit RIT's hearing impaired arts graduates. Alumni run production departments, own furniture design woodshops, and administer major art programs.

RIT's nationally recognized College of Fine and Applied Arts, comprised of the School of Art and Design and the School for American Craftsmen, offers 13 art

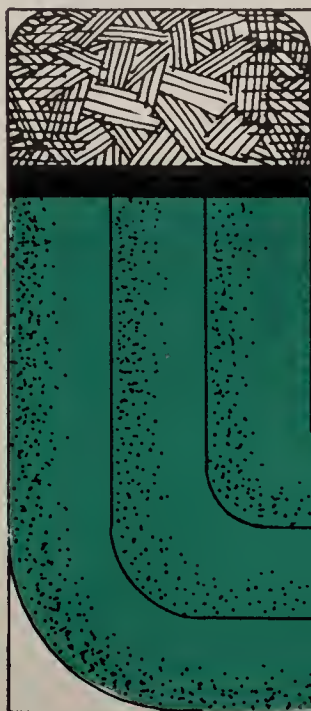
concentrations to prepare artists, craftsmen and designers for leading careers throughout the world. Hearing impaired students can earn the AAS degree through NTID as well as BFA or MFA degrees in the college.

Dr. Toerge to Head Spinal Cord Program

John F. Toerge, DO, associate medical director at the National Rehabilitation Hospital (NRH), has been appointed medical director of the NRH Spinal Cord Injury Program.

A graduate of the Chicago College of Osteopathic Medicine, Dr. Toerge has served as associate medical director and clinical director at the hospital since May 1983. He has been instrumental in the development of clinical programs and patient care delivery in rehabilitation at NRH and the Washington Hospital Center.

Under Dr. Toerge's leadership, NRH plans to develop a comprehensive system for management of the spinal cord injured person.



If you find in **American Rehabilitation** the kind of material that informs or that is useful to you in some way, a colleague who does not receive the magazine may also profit by it. If you know such a person, fill out the blank below and send it to Editor, **American Rehabilitation**, Room 3414, 330 C Street, S.W., Washington, D.C. 20202. We will be happy to send your friend a sample copy of the magazine.

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Spring 1989

AMERICAN REHABILITATION

Native Americans

Deaf-Blindness

Disability Expenditures

Drug Abuse

Information Management

Sign up for 'Signing'



"Signing" is one of the principal ways deaf persons communicate.

If you can learn the language of signs, you can speak with most persons with long standing severe hearing problems and help end isolation and broaden their horizons. And your own.

Often persons with hearing problems do not know about basic services within reach in their community because of the inability of most social workers to communicate with them.

To obtain information about courses on signing in your area, contact a local vocational rehabilitation office, a club or school for the deaf, or a hearing and speech agency.

AMERICAN REHABILITATION

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An Alternative Approach to Employment for People with Deaf-Blindness

Barbara Hausman

Deaf-blindness, one of the most isolating and debilitating conditions known to man, demands a specialized approach to comprehensive services. A particular challenge is the provision of employment services which will allow people to experience success in spite of their profound multiple handicaps. An estimated 40,000 Americans have this condition. No other population with disabilities faces a greater likelihood of exclusion from the work force and being at such extreme risk for chronic unemployment.

Established in 1967 by a unanimous act of Congress, the Helen Keller National Center (HKNC) operates under the general supervision of the Rehabilitation Services Administration. It is authorized under Title II of the Rehabilitation Amendments of 1986 and funds for its operation are appropriated annually by Congress. Headquartered in Sands Point, New York, HKNC offers its consumers (who are referred and sponsored by their state vocational rehabilitation agencies) individualized diagnostic evaluation and short-term comprehensive rehabilitation training. The center also operates an extensive network of field services through its 10 regional offices, a National Training Team, Technical Assistance Center (TAC), and some 26 affiliated agencies. These affiliates are public and private agencies that receive temporary financial



assistance and training from HKNC to develop and/or expand services for the deaf-blind population throughout the country.

The center's program focus is the provision of personal adjustment training in

communication skills, orientation and mobility, personal hygiene and skills of daily living, home management, and other areas related to increasing the capacity of the individual to participate more fully in his/her home community.

In addition to deaf-blindness, many clients have other disabling conditions, such as mental retardation, orthopedic and cardiac problems and diabetes.

Traditionally, vocational options for people with profound and/or multiple disabilities have been limited to a narrowly defined continuum, including placement in work activity centers, sheltered workshops or, less frequently, fully competitive environments. An alternative approach to employment in community-based work settings is supported employment. Yet, 2 years ago, HKNC's TAC, funded through a cooperative agreement with the U.S. Department of Education, Special Education Programs, conducted a search to identify supported employment programs serving people with deaf-blindness. TAC found that although there were community-based work programs for school age youths with deaf-blindness, there was a paucity of comparable programs for adults who are deaf-blind.

In response to this obvious program need, supported employment became a major priority for TAC. Activities have consisted primarily of intensive training workshops to build the necessary knowledge base to develop supported employment sites and offer practical learning experiences. Onsite consultation and followup were provided, as needed. The TAC Project has been a partner in the successful programming and implementation of supported employment in Kentucky, Georgia, Colorado, Illinois, Florida, and Washington, D.C.

One of HKNC's affiliates, the Arizona Department of Economic Security, Services for the Blind and Visually Impaired, has been actively involved with The Community Outreach Program for the Deaf (COPD) in Tucson, which received a supported employment grant to serve people with deaf-blindness. Rod Ferrell, the affiliate coordinator of deaf-blind services, reports that one participant in the project, Robert Burdine, a former HKNC client

who was employed as a member of a work crew, is now an independent houseman at the Plaza International Hotel. Connie Ochs, nearing completion of her training at HKNC is slated for supported employment in Tucson as well. COPD recently received a 3-year federal grant to provide "Comprehensive Community Adjustment for Deaf-Blind Youths and Adults in Transition" which will demonstrate an integrated model of community living, work and social skills. For example, Mr. Burdine is living in an Adult Developmental Home in his own

tings in local communities and now incorporates the principles and practices of supported employment, stressing the need for intensive and perhaps ongoing support. Some clients have had little or no job experience. Others, who already understand the subtleties and expectations of the workplace, need to explore new opportunities, develop new skills or learn to deal with the adjustment of hearing and/or visual deterioration or loss.

The center's WEP Coordinator, Dennis Brady, first meets with the client to consider vocational goals and review

"Once a client is placed, followup services are necessary to ensure long-term placement."

independent apartment and is a happy, well adjusted, contributing citizen. "We realize that supported employment is a new philosophy that will require 'systems change.' We consider HKNC's TAC a vital partner in our commitment to try new techniques for serving persons who are deaf-blind," Mr. Ferrell noted.

According to TAC Director Angela Covert, "In the early days of the TAC Project, the suggestion that individuals with deaf-blindness and other severe disabilities might live and work in the community was generally met with skepticism, if not outright rejection. Supported employment was quickly dismissed as 'it will never work.' In 3 short years, there has been a discernible shift in this attitude with a greater willingness to 'make it work.' Although there has been great progress, the task is enormous and continuing efforts are needed to insure that all adults with deaf-blindness have opportunities to live and work in the community."

Several years ago, HKNC expanded its traditional personal adjustment training curricula to include community-based employment training in a unique "Work Experience Program" (WEP). Formalized a year ago, the program exposes clients to a variety of realistic work set-

tings in local communities and now incorporates the principles and practices of supported employment, stressing the need for intensive and perhaps ongoing support. Some clients have had little or no job experience. Others, who already understand the subtleties and expectations of the workplace, need to explore new opportunities, develop new skills or learn to deal with the adjustment of hearing and/or visual deterioration or loss.

The community "work providers" are typical of most employers. They have no special communication skills, they've never hired an employee who is deaf-blind and are often resistant, but the jobs are typical positions that anyone would perform.

Each match is unique, as are the preparatory work and the required strategies for support systems. Usually, the coordinator prospects sites looking for challenging jobs, always networking and using contacts where possible.

The following case example illustrated HKNC's WEP:

- Carmen Rios, a resident of California, is deaf and visually impaired. She has good writing skills and a knowledge of English. The Long Island district Social Security office needed assistance in processing some 3,000 monthly applications.

After a site visit to determine if the physical working environment was suitable, the WEP coordinator met with the key people who would interface with Ms. Rios. Then they met with Ms. Rios, with Mr. Brady as interpreter. A Social Security employee, who later assigned and verified Ms. Rios' work, first taught Mr. Brady the tasks. Acting as job coach, he instructed Ms. Rios in four specific tasks involved in alphabetizing applications by date and returning them to her co-worker. Simple adjustments were made to accommodate glare from large exterior windows. Mobility training focused on routes to her worksite in the building, to the restrooms and to the lunchroom. Assertiveness training encouraged Ms. Rios to communicate her needs to others. After five supportive sessions at the office, Ms. Rios was able to negotiate on her own. HKNC provides transportation. According to District Manager Anita Jankowski, "Carmen is terrific. She has a positive attitude toward her work and works very hard. She has definitely been an asset to us."

- Working in the cafeteria at nearby St. Francis Hospital, Leonard Ferguson's job coach was an instructor from HKNC's communications department. He needed to learn job-related vocabulary in written and sign language modes. He couldn't read the lunch menu, and was thus unable to order for himself. His time skills needed sharpening to enable him to identify "break time." A Center mobility specialist reinforced Mr. Ferguson's indoor cane skills in the congested cafeteria.

- An "enclave" is another alternative approach to the supported employment model. Four HKNC clients are working at Independent Living Aids, Inc., where they label brochures, stuff envelopes, zip code letters, collate, and staple papers. A WEP intern and residence aide serve as job coaches during this experience, which occurs 2 days each week. Supports included mobility training for routes from their worktable to restrooms and breakroom.

Prompting, to keep clients on their tasks, is ongoing. An HKNC van transports them about 45 minutes each way.

"The ultimate evaluation of everything we do and provide at HKNC is what happens to, for and with our clients once they return home," states HKNC Director Stephen Barrett. To help implement this concept, the center's placement specialist identifies a client's residential and vocational goals, building on knowledge accumulated during training, with input from the client, state counselor and HKNC's regional representatives and affiliates, if appropriate.

Networking with state counselors, other professionals, government agencies, and civic groups in the client's hometown,

"There is a real lack of knowledge by the public and professionals of what a person with deaf-blindness can do."

as well as HKNC affiliates and regional representatives, the placement specialist searches for local resources: potential employers, residential programs and ancillary services (i.e., interpreters, transportation, continued training in braille or ASL, recreation, home maintenance). Once services and employers are known, a field visit is made to assess the worksite, analyze the job and make any needed modification. "I assist, facilitate and advocate for the client," explains Jeremy Burwell, HKNC senior placement specialist. "It means getting applications started, setting up interview appointments, negotiating systems, stressing the individual's eligibility for services. Once a client is placed, followup services are necessary to ensure successful long-term placement. One of the major areas of concern when seeking job opportunities for people who are deaf-blind is attitudinal barriers. There is a real lack of knowledge by the public and professionals of what a person with deaf-blindness *can* do. This is still an underserved popula-

tion, even though many people are working in a host of jobs, from assemblers, clerk-typists and lab assistants to computer programmers, word processor operators, teachers, counselors, mechanics, and engineers," said Mr. Burwell. He cited a few examples of recent job placements:


- Tom "P," in his early 30's, has Usher's syndrome. Originally an electronics assembler, he enrolled at HKNC when his vision began to deteriorate. After skills training, job readiness, counseling, and career exploration, he participated in the center's teacher's aide program and was later hired by Overbrook School for the Blind in Philadelphia as a teacher's aide and sign

language instructor.

- During his early 20's, "D.L.," deaf-blind due to maternal rubella syndrome, expected his training outcome to be sheltered employment. After a work experience in food service on and off campus, HKNC staff realized that "D.L." had potential for employment in the competitive market. A videotape of his performance and a written recommendation from his community employer was sent to the referring agency along with recommendations for ongoing food service training. Soon after, he was working full-time in a fast-food restaurant and is presently being considered for a supervisory position.

- "G.M.," a young woman, also deaf-blind as a result of rubella syndrome, participated in a baking and cooking work experience on campus. She is now working and training in a community-based bake shop in Westchester County, New York. Consultation was provided by the HKNC mobility and home manage-

(Continued on page 31.)



Arizona RSA Interactions with Native American Populations

Lawrence E. Powers

The Arizona Rehabilitation Services Administration (RSA) has long been involved in the special and unique needs of Indian populations residing both on and off reservations in Arizona. The Rehabilitation Act of 1973, as amended in 1986, with particular emphasis on tribal interaction in the delivery of RSA services, is a direct outgrowth of the demonstrated effectiveness of Arizona RSA in the development of the Navajo Vocational Rehabilitation Program (NVRP). This model of effective cooperation between state and tribe should form the basis of successful program accomplishments across the nation, utilizing the Arizona NVRP model where appropriate, while also encouraging other service delivery models to be developed by state and tribal partnerships.

From March 10, 1921, when the Arizona Legislature passed the Vocational Rehabilitation Act, until the 1950's, vocational rehabilitation (VR) staffing in a rural state with two large metropolitan areas dedicated very little, if any, special outreach to disabled Native Americans.

From the 1950's until the early 1960's, while VR counseling staff increased in general, some special attempts were initiated by staff through regular visits to some Arizona reservations to solicit referrals while developing cooperative relation-

ships with other ancillary service providers such as the Bureau of Indian Affairs (BIA) and the United States Public Health Service (USPHS).

In 1963, the Arizona Division of Vocational Rehabilitation, through a cooperative relationship between the Flagstaff VR office and the School of Education at Arizona State College, Flagstaff, participated in an RSA Research and Demonstration (R&D) Grant that lasted until 1966. The Navajo Project was the result of a joint Arizona VR and Navajo Tribe Education Planning Committee meeting that was held several months earlier. The purposes of the R&D project were to:

- develop vocational evaluation techniques for disabled Navajos;
- demonstrate procedures for coordinating and involving all agencies (tribal, USPHS, BIA, etc.) in Northern Arizona, and;
- gather and analyze data to determine the effectiveness of the project.

From 1963 to 1972, the Northern Arizona Office of Arizona VR expanded service delivery to the Navajo, Hopi and White Mountain Apache Tribes, building upon the demonstrated success of the Arizona State College Navajo Project. All staff were sensitized to the special needs of this diversified client population, and

Native American VR counselors were recruited and hired whenever possible. Special activities during this period included Arizona RSA participation in a summer VR work experience placement in 1969 at the Sage Memorial Hospital in Ganado, Arizona, under the supervision of the University of Southern California School of Medicine, Division for Research and Training in Rehabilitation. Graduate interns in VR are still recruited and several Native American VR counselors have gained valuable experience working in the Arizona program. Arizona commitment was also demonstrated in supplying data for a study of American Indian VR service delivery conducted by the University of Oklahoma in 1969. From 1969 to 1970, staff from the Flagstaff Office served on the technical steering committee for the Four Corners Mental Retardation Project that was successful in identifying special needs among the mentally retarded of the four corners of Arizona, New Mexico, Utah, and Colorado. Special activities among the Hopi included VR participation in a joint Hopi/USPHS Alcoholism Project and the early stages of the development of the present Hopi Center for Human Development.

From 1970 to 1973, the Pima Indians on the Gila River Reservation, south of

Countless hours of staff time, including extensive travel over the past 15 years, have assured that the Navajo Vocational Rehabilitation Program is a workable system developed in partnership between the Navajo Nation and RSA.

Phoenix, were recipients of an RSA Innovation and Expansion Grant along with the subsequent Arizona RSA Establishment Grants. The disability focus was alcoholism, and indigenous VR counselors worked alongside staff funded by a Model Cities Grant that was the first of its kind awarded to a tribal government in the United States.

In October 1973, a delegation from the Navajo Tribal Council and Arizona RSA met with RSA Region IX staff in San Francisco; eventually, this culminated in an RSA Innovation and Establishment Grant being awarded to the Navajo Tribe. Continuation grants in subsequent years included a joint funding effort in 1979, with Arizona taking the lead in eliciting funds from RSA in New Mexico and Utah. Subsequent events, including testimony by the Navajo Nation at the Congressional Subcommittee on the Handicapped and at the Oversight Hearing on P.L. 93-112, resulted in the Navajo Vocational Rehabilitation Program receiving direct federal funding under Section 130 of the Rehabilitation Act.

Throughout the development of the Navajo Vocational Rehabilitation Program, Arizona RSA, along with Dr. Herb Leibowitz of the Region IX Office, has maintained a close, positive working relationship with the Navajo Nation and continues to provide technical assistance and guidance in all phases of this unique system of RSA service delivery. Specific to this effort has been assistance in counselor training, manual and procedure development, Case Review System reporting, and assistance in developing new strategies in the areas of recreation, transitioning, comprehensive services for

independent living, transitional employment training, and supported employment.

Facility development on the vast Navajo Nation has been bolstered by Arizona RSA Establishment Grants and Supported Employment Grants totaling over \$1 million. Countless hours of staff time, including extensive travel over the past 15 years, have assured that the Navajo Vocational Rehabilitation Program is a workable system developed in partnership between the Navajo Nation and RSA. Elmer Guy, Director, NVRP, and his staff are an integral part of VR service delivery in Arizona and Region IX.

Also in 1973, and continuing in 1974, the Cocopah Tribe, south of Yuma and east of the Colorado River, was awarded Arizona RSA Establishment Grants to assist in the development of a VR project aimed at alcoholism and its effects.

In 1986 and 1987, a concentrated effort had been sustained to increase VR service delivery to the White Mountain Apache Tribe in Southeastern Arizona. Establishment Grants totaling over \$100,000 have been directed toward the expansion of the Whiteriver Skill Center and has resulted in increased service delivery for Apache clients, including, among other things, the hiring of indigenous Apache staff who function as counselor aids in support of the Arizona VR counselor who works out of Show Low, Arizona, 37 miles to the north. A service contract with the Apache Tribe will allow for further expansion in such areas as transitional employment training, school to work and supported employ-

ment. While all disability groups are represented in this effort, particular emphasis has been directed to the special needs of mental retardation/developmental disability clients and their families.

Since the previously mentioned RSA Research and Demonstration Grant awarded to the then Arizona State College in 1963, the Flagstaff VR local office has continued a close working relationship with the Northern Arizona University Institute for Human Development (IHD). As a result of service contracts between RSA and IHD for vocational and psychological evaluations, in-



cluding American Indian clients from the Arizona RSA caseloads in Northern Arizona, planning meetings were held in 1982 and 1983, prior to the Northern Arizona University application for Research and Training Center funding. Arizona RSA has participated in a number of service related and training activities at the Northern Arizona University and University of Arizona Native American R&T Centers, while maintaining a well defined close working relationship with Northern Arizona University and its continued R&T activities.

Arizona RSA staff have assisted the Northern Arizona University Native American R&T Center in technical assistance activities with the Rocky Boy

(Continued on page 32.)

Disability Expenditures

Monroe Berkowitz
Carolyn Greene

Benefit payments under Social Security Disability Insurance (SSDI), perhaps our largest single government disability program, have exhibited trends that are not satisfactorily explained by changes in economic or demographic conditions. The number of monthly beneficiaries and the amount of the awards under SSDI increased dramatically from its inception in 1957, peaked in fiscal year 1975, and now shows signs of increasing again.

One aspect of disability expenditures that stands out is that *so much* is being expended in this area. Disability is an expensive phenomena — a fact that is not always appreciated when we look at one program or one area in isolation. What unites these expenditures for the more than 75 programs? What allows us to group these sums together?

In work done under an NIDRR financed project entitled, “Enhanced Understanding of the Economics of Disability,” we have examined total disability expenditures for the population 18-64 years of age from 1970 to 1986.¹ We define disability expenditures as those sums that would be eliminated if, by some magic, disabilities were to disappear from the face of America. There is neither a universal definition of disability expenditures nor an agreement on how they should be calculated. Neither are these disability expenditure data represented in

one place; what follows are necessarily estimates.

We recognize that our estimates of total disability expenditures are conservative due to missing and unavailable information. Most notable is the lack of complete coverage of data about expenditures made by private organizations (either through services or actual payments to disabled people), housing and transportation expenditures and out-of-pocket expenses paid by disabled people themselves. However, our estimates have been generated regularly using an estimation methodology that has remained consistent in each year.

Total Disability Expenditures — 1986

We estimate the value of disability expenditures in 1986 was over \$169.4 billion (See Chart 1). This amount is made up of three types of expenditures. The first type is *transfer payment* expenditures, which totalled over \$86.5 billion in 1986. Transfer payments are the actual funds that are allocated each year to people, because of disabilities. We have divided the transfers into four categories, which emphasize the major reasons why monies are transferred to disabled people. This division is only one of the many possible ways that transfer payment programs could be grouped.

Programs that pay money for a disability because their participants are in-

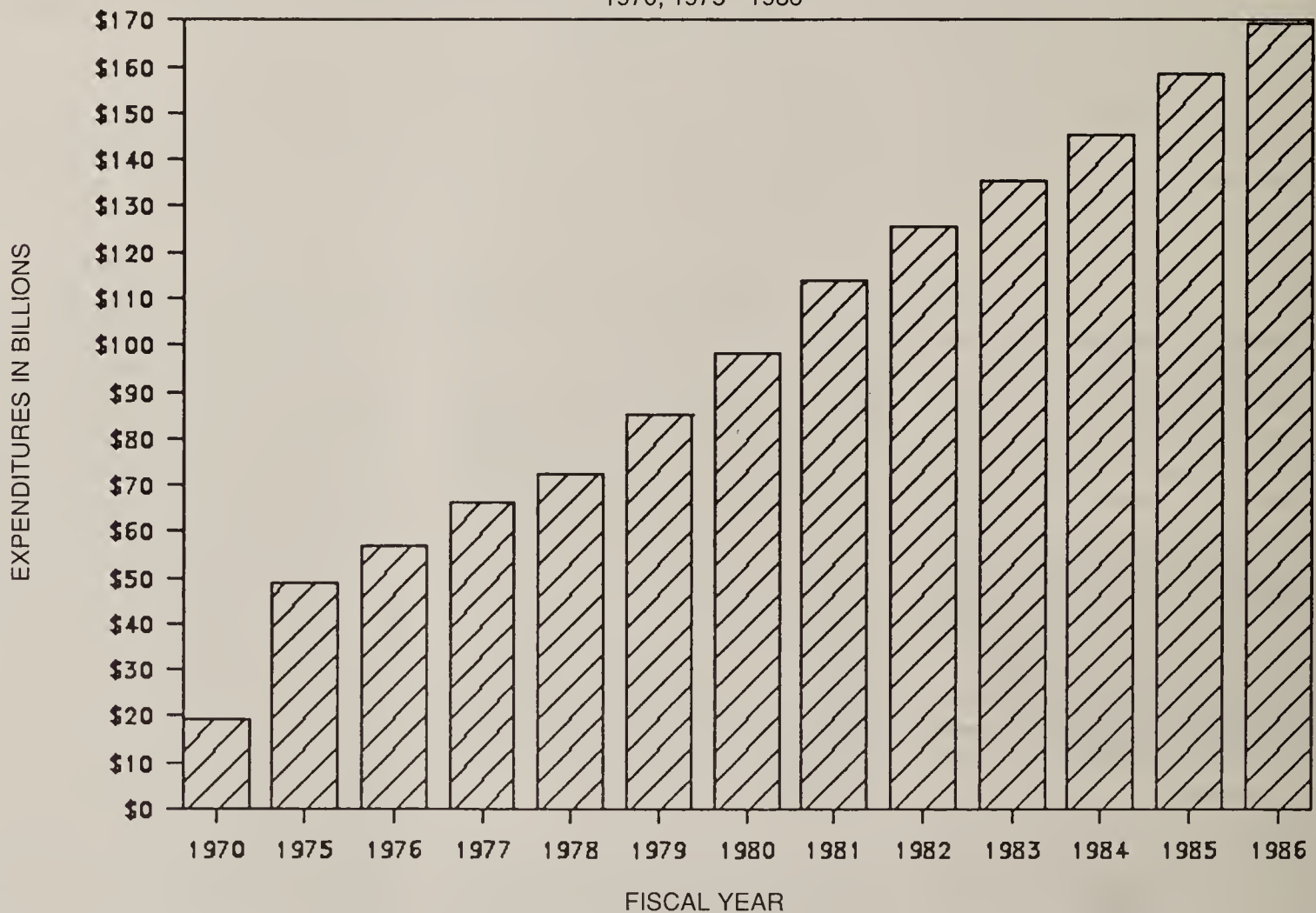
sured against that contingency occurring fall under two categories: *social insurance programs*, such as Social Security Disability Insurance, under which there is compulsory coverage of the working population; and *individual and employer provided insurance*, which an individual buys or an employer provides to employees. A third category is the *indemnity programs*, in which disabled people receive funds if they are involved in accidents where some other person is at fault. The programs under *income support*, the fourth category, pay disabled people who can demonstrate that they are without sufficient resources. An example of this category is Supplemental Security Income (SSI) for disabled and blind recipients. Table 1 displays the four categories of transfer payments and the programs within each category.

The second type of expenditures for disabled people are medical care expenditures, which amounted to over \$79.3 billion in 1986. Medical care differs from transfer payments in at least two aspects. First, medical care expenditures involve using real resources, such as a hospital bed or a prescription drug. Transfers, however, are only movements of funds from one segment of the population to another. The other difference is that even if a disabled person becomes well enough to return to work and consequently transfer payments are stopped, medical

CHART 1

DISABILITY EXPENDITURES

1970, 1975 - 1986



care expenditures could still continue in order to maintain the ability to work. Despite the differences between medical care and transfer payments, the four categories used to describe transfers (social insurance, individual and employer provided insurance, indemnity, and income support) are also used to classify medical care expenditures. The breakdown of medical care expenditures into specific programs can be seen on Table 2.

Direct service expenditures are the

smallest of the disability expenditures. Of the \$169.4 billion expended for disabled persons in 1986, only a little over \$3.5 billion was spent on direct services. The

categories used for medical care and transfer payments. Therefore, direct service expenditures are classified in the following five functional categories:

The first half of the 1970's was the period of the most vigorous growth in disability expenditures.

nature of the programs included under direct services leads to difficulty in separating the programs into the four

rehabilitative services, veterans' services, services offered to persons with specific impairments, general federal programs,

and employment assistance programs. Table 3 shows the direct service expenditures for 1986.

Trends in Total Disability Expenditures

Our goal now is to place the seemingly large disability expenditures estimate in perspective. Heightened interest, awareness and concern about these expenditures stem not so much from the absolute amount of money involved, but from the sharp increase in these amounts over the years. These concerns persist, although the rate of increase (growth rate) in these sums has slowed considerably. We will examine the movement of the disability expenditures growth rate in three stages.

Fiscal Years 1970-1975

The first half of the 1970's was a period of new governmental programs and social experimentation. From 1970 to 1975, social welfare expenditures (the expenditures for income maintenance, health, education, housing, veterans' programs, and other welfare services) increased by 14.75 percent each year, rising from \$145.9 billion to \$290.1 billion. Spending on social programs was increasing at a faster rate than the economy was growing. During this period, the *Gross National Product* (GNP) was increasing at a rate of 9.5 percent per year. The growth rates of disability expenditures, social welfare expenditures and GNP are shown in Chart 2.

As fast as social welfare spending was increasing, disability expenditures were increasing at a faster rate. Indeed, the first half of the 1970's was the period of the most vigorous growth in disability expenditures. Between 1970 and 1975, disability expenditures increased by a total of 152 percent, or 20 percent annually, from \$19.3 billion to \$48.7 billion. In 1970, disability expenditures amounted to 13 percent of social welfare expenditures. By 1975, however, they had increased to 17 percent, reflecting the expanding awareness of and willingness to help

Table 1

Transfer Payment Expenditures - 1986

	Amount in Thousands
Social Insurance	
OASDHI:	
Disability	\$20,124,114
Survivors	1,839,055
Retirement	511,324
	<hr/> 22,474,493
Individual and Employer-Provided Insurance	
Whole Life	540,000
Health / Long-term Disability	2,085,583
Accidental Death and Dismemberment	391,160
Federal Life	88,274
Federal Civil Service	1,665,960
Railroad Retirement	358,974
Armed Forces Retirement	970,726
Other Federal Retirement	1,479,870
State and Local Retirement	1,386,844
Private Pensions	1,872,120
	<hr/> 10,839,511
Indemnity	
Workers' Compensation:	
Federal:	
FECA	845,160
Longshoremen and Harborworkers	49,486
Black Lung Benefits	768,887
State Workers' Compensation	10,706,440
Veterans' Compensation	5,727,276
Automotive Bodily Injury	9,330,867
Miscellaneous Bodily Injury	17,558,964
	<hr/> 44,987,080
Income Support	
Veterans' Pension	1,096,406
Supplemental Security Income	5,394,009
AFDC	1,751,776
Food Stamps	775,723
	<hr/> 9,017,914
Total Transfer Payment Expenditures	<hr/> 87,318,998

Table 2
Medical Care Expenditures - 1986

	Amount in Thousands
Social Insurance	
Medicare	
Hospital Insurance	\$5,143,044
Supplementary Medical Insurance	3,685,365
	8,828,409
Individual and Employer-Provided Insurance	
Department of Defense	
Military Medical Facilities	50,698
CHAMPUS	57,056
CHAMPUS - Handicapped	—
Private Health Insurance	
Blue Cross/Blue Shield	15,536,504
Insurance Companies	29,178,943
Independent Plans	1,327,234
	46,150,435
Indemnity	
Veterans' Medical Care	
Community Nursing	121,341
Veterans' Nursing	147,029
Veterans' State Nursing	10,723
Veterans' State Hospital	877
Hospital Based Home Care	16,616
Veterans' Hospitalization	2,004,509
Veterans' Outpatient	1,304,681
Veterans' Prescription Drugs	126,222
Workers' Compensation	
FECA	196,420
Other Federal Employees	77,819
State Workers' Compensation	4,237,947
Black Lung Benefits	27,801
	8,271,985
Income Support	
Medicaid	15,587,952
Medical Vocational Rehabilitation	349,277
St. Elizabeth's Hospital	127,170
	16,064,399
Total Medical Care Expenditures	79,315,228

disabled people (See Chart 3). The rising impact of disability expenditures can also be seen when disability expenditures as a percentage of GNP is examined. Although the transfer payment component of disability expenditures does not figure into the measurement of GNP, we expect a growing economy would tolerate increases in disability expenditures easier than a shrinking one. Chart 4 shows the percentage of GNP that disability expenditures represents.

Adjusting the data to reflect the rising price levels experienced during this period affects the dollar amount of the expenditures, but not the comparative trends. The yearly growth in *real* GNP and *real* social welfare expenditures remained positive at 3 percent and 7 percent, respectively. *Real* disability expenditures, however, continue to show the most growth, 13 percent annually. The large growth in real disability expenditures implies that, despite the effects of price increases, more and more assistance was being given to disabled people (See Chart 4).

The quick rise in disability expenditures has had a major impact on per capita measures as well. Between 1970 and 1975, the U.S. population aged 18-64 maintained a slow average rate of growth, 1.9 percent per year. The large increases in disability expenditures experienced during this period, however, caused disability expenditures per capita to increase from \$167 per person in 1970 to \$386 per person by 1975. This corresponds to an increase of 131 percent cumulatively.

Disability expenditures are made both in the private and the public sectors. In 1970, of the \$19.2 billion spent on disabled people, \$12.8 billion, or 67 percent, was provided by the public sector. These public sector expenditures include the social insurance programs, all federal insurance policy and retirement plan claims, all *income support* programs, all veterans' programs, workers' compensation (included because these payments are man-

Table 3
Direct Service Expenditures - 1986

	Amount in Thousands
Rehabilitative Services	
Rehab Services - Basic Support	\$1,430,818
Rehab Services - Special Projects	51,311
Rehab Services - Innovation and Expansion	18,779
Voc. Rehab for SSDI Beneficiaries	4,252
Voc. Rehab for SSI Beneficiaries	600
Voc. Education - Basic State Grants	148,793
	<hr/> 1,654,553
Veterans	
Blind Veterans Rehab Centers	8,783
Voc. Rehab for Disabled Veterans	103,980
Specially Adapted Housing	14,498
Direct Loans for Disabled Vets. Housing	119
Autos and Adaptive Equipment	15,785
Veterans' Prosthetic Appliances	104,917
Rehabilitative Research Prosthetics	15,375
Dependent's Educational Assistance	59,879
Veterans' Domiciliary Care	72,765
Veterans' State Domiciliary Care	9,983
U.S. Soldiers Homes	16,587
	<hr/> 422,671
Services Offered to Persons with Specific Impairments	
Developmental Disabilities - Basic Support	65,076
Developmental Disabilities - Spec. Project	2,680
Gallaudet College	40,248
National Technical Inst. for the Deaf	30,624
Handicapped Media Services	12,051
Books for the Blind & Phys. Handicapped	32,309
Mental Health - Hosp. Improvement Grant	—
	<hr/> 182,988
General Federal Programs	
Social Services (Title XX)	355,042
	<hr/> 355,042
Employment Assistance Programs	
Federal Employment for the Handicapped	209
Federal Employment Services	30,325
Federal Job Training Programs	127,045
	<hr/> 157,579
Total Direct Service Expenditures	<hr/> 2,772,833

dated by state law and are administered by state regulations) and all direct services. The remaining \$6.4 billion (33 percent) was provided by private sources, such as automotive and miscellaneous bodily injury claims and all private medical and life insurance plans. Despite the large increase of disability expenditures, themselves, the public and private components remained relatively stable. In 1975, public sector expenditures were 65 percent and private expenditures 35 percent of the disability total. Chart 5 displays private and public sector disability expenditures.

Fiscal Years 1976-1979

The second half of the 1970's showed a slowing down of the rate of increase in disability expenditures, despite some substantial year-to-year fluctuations. During the period between 1975 and 1976, the growth of disability expenditures underwent a sharp transition. The 20 percent average yearly growth experienced in 1975 fell to 17 percent in 1976. The 17 percent rate of increase was maintained in 1977; however, in 1978 the growth rate plunged to 9 percent, the lowest rate so far. In 3 years, the growth rate had fallen to less than half of that experienced from 1970 to 1975.

This pattern was repeated in real disability expenditures as well. Between 1975 and 1976, growth in real expenditures fell to 11 percent. The fiscal year 1978 brought with it another plunge to a record low of 1 percent growth. The rate of increase recovered somewhat in 1979, but the 5 percent growth experienced did not balance out the rapid drop of the preceeding year.

The erratic growth in disability expenditures during this period, was not matched in total social welfare expenditures. The growth in social welfare expenditures fell slightly to 9 percent between 1976 and 1977, and remained at 9 percent until 1979. Similarly, GNP growth was stable. Between 1976 and 1979, GNP growth re-

There is neither a universal definition of disability expenditures nor an agreement on how they should be calculated.

maintained in the range between 11 and 13 percent.

Despite the fluctuations, the importance of disability expenditures relative to social welfare expenditures climbed even higher. In 1976, disability expenditures were 17 percent of social welfare expenditures. By 1979 this ratio had increased to 20 percent. Disability expenditures per capita also rose steadily from the 1976 amount of \$444. In 1979, disability expenditures per capita had grown by 7 percent each year to \$625.

The public and private percentages of total disability expenditures started this period at the same levels as in the 1970 to 1975 period, 65 percent and 35 percent, respectively. By the end of 1979, little had changed. Public disability expenditures had fallen to 63 percent, or \$53.8 billion. This was paralleled by the increase in the private sector to 37 percent of the total, or \$31 billion.

Fiscal Years 1980-1986

The 1980's have been a period of contraction in government spending, and disability expenditures have not escaped the downward pressure. In fiscal years 1980 and 1981, the growth in disability expenditures was at its highest level during the period: 16 percent. From 1982 onward, however, the rate of growth never exceeded 10 percent. By 1986, these expenditures were growing at their slowest rate to date, 7 percent.

The lower disability expenditures growth corresponds to the growth in social welfare expenditures. The 1980 to 1986 period showed an average rate of increase of 10.3 percent. The nation's economy was also growing at the comparatively same rate. GNP increased by an average of 8 percent a year from 1980 to 1986. Although disability expenditures

were growing slightly faster than social welfare expenditures and GNP, the effect was very slight. This is evidenced by the fact that between 1980 and 1986 disability expenditures remained within 20 and 22 percent of social welfare expenditures. The average was 21 percent, only 2 percent higher than in the last period examined.

The patterns of decline set by *nominal* measures repeated themselves in *real* disability expenditures. The 1980's saw a minute drop in the average rate of real growth to 5 percent per year. This paralleled the small 3 and 4 percent yearly growth experienced in real GNP and real social welfare expenditures. The rate of increase in disability expenditures per capita also fell from 10 to 9 percent per year. Consequently, from 1980 to 1986, disability expenditures per capita rose from \$712 to \$1,136.

The most dramatic change to be noted

in this period is the rearrangement of the public sector and the private sector proportions of disability expenditures. In 1980, public sector expenditures amounted to \$60.6 billion, or 62 percent of the total. By 1986, the \$91.6 billion public sector sum had fallen to only being 54 percent of total disability expenditures. Simultaneously, private sector expenditures were becoming a more important part of the disability total. Between 1980 and 1986, private sector expenditures went from \$37.9 billion, or 38 percent of the total disability expenditures, to \$77.8 billion, or 46 percent.

What Can We Learn From Our Look at Disability Expenditures?

Cash benefits, medical care payments or services costs are made to, or for, people who have experienced long-term effects from physical or mental impairments because of injury or disease. For the most part, these are people who are limited or unable to engage in their usual activities because of some mental or physical condition. We have tried to exclude the costs of short-term illnesses and have included

Terms

Transfer Payments — Cash payments to persons, such as Social Security payments. Differs from wages, since recipient need not provide any service at the time payment is made.

Disability Insurance — Provides payment to persons unable to work due to a mental or physical impairment.

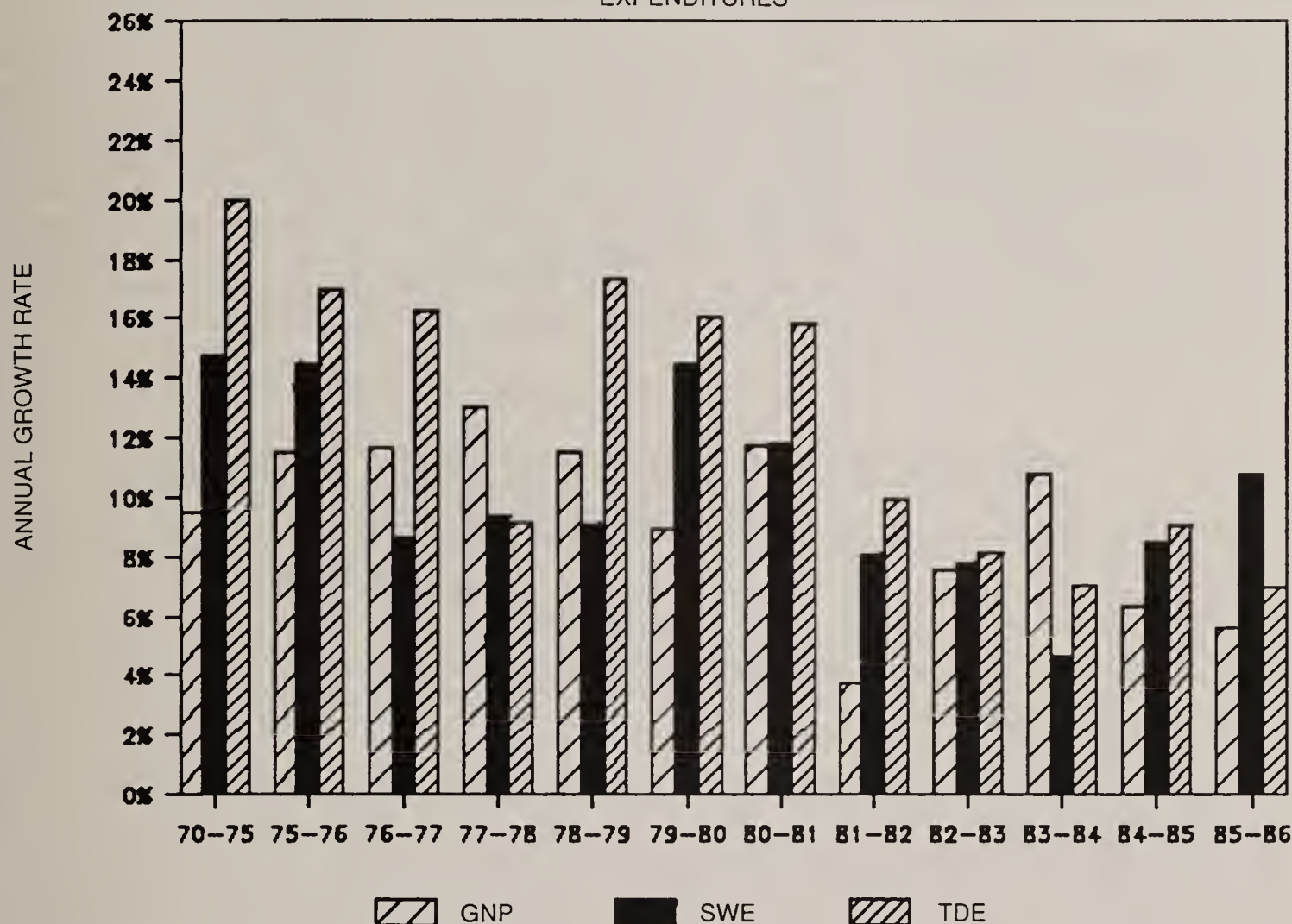
Indemnity Programs — Programs designed to compensate persons for harm caused by another party.

Income Support Programs — These are the "safety net" programs designed to maintain individuals at some minimal standard of living.

Gross National Product — The dollar value of all of the output of the economy produced during a given year.

Nominal Dollars — Current dollar amounts. Real dollars. Current dollar amounts adjusted for changes in the price level (inflation).

CHART 2
ANNUAL GROWTH IN
GNP, SOCIAL WELFARE & DISABILITY
EXPENDITURES



only people aged 18-64 where we have been able to make these age distinctions.

It is not only that we consider these expenditures to be large, it is that they are made for a variety of reasons in a huge assortment of programs. Like other industrialized countries of the world, we

have not adopted a single uniform approach to disability. We have separate programs for veterans, civil servants, work injured people, employed people and their dependents, and those people who can prove they are sufficiently poor to qualify for benefits. Disability pro-

grams exist for many reasons, including providing incentives to optimal safety behavior.

In deciding what to pay to whom, we look not only at the results of an injury or a disease, but why it came about and to whom it happened. The person hit by a car driven by an insured motorist is treated differently than the person who falls off the roof of his own home, even if both are similarly impaired. This differentiation is not necessarily bad. Most countries treat work injuries differently

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than nonwork injuries. New Zealand and Holland are the two exceptions, and Holland is moving back to possibly making such distinctions once again.

We have tried to indicate something of the overall trends in disability expenditures since 1970. These are puzzling trends and we have no satisfactory theory to explain them. We are sure of one thing:

These fluctuations in disability expenditures are not matched by corresponding fluctuations in injuries or diseases. These changes then must be accounted for by demographic changes, changes in social and economic conditions, changes in the public perception of disability, and the way that the benefits laws are administered. Our look at disability expen-

ditures emphasizes an old lesson that cannot be repeated too often. *Disability is a socioeconomic phenomenon, not a medical one.*

Although we accept the fact that in the real world there will be these many different programs which we have here put together, this does not mean that we have necessarily arrived at the best allocation of resources in this field. We are struck with how little we seem to spend comparatively on direct services such as rehabilitation. We would argue that part of the problem is that the methods we are using to evaluate rehabilitation programs have been deficient.

CHART 3

DISABILITY EXPENDITURES AS A PERCENT OF SOCIAL WELFARE EXPENDITURES

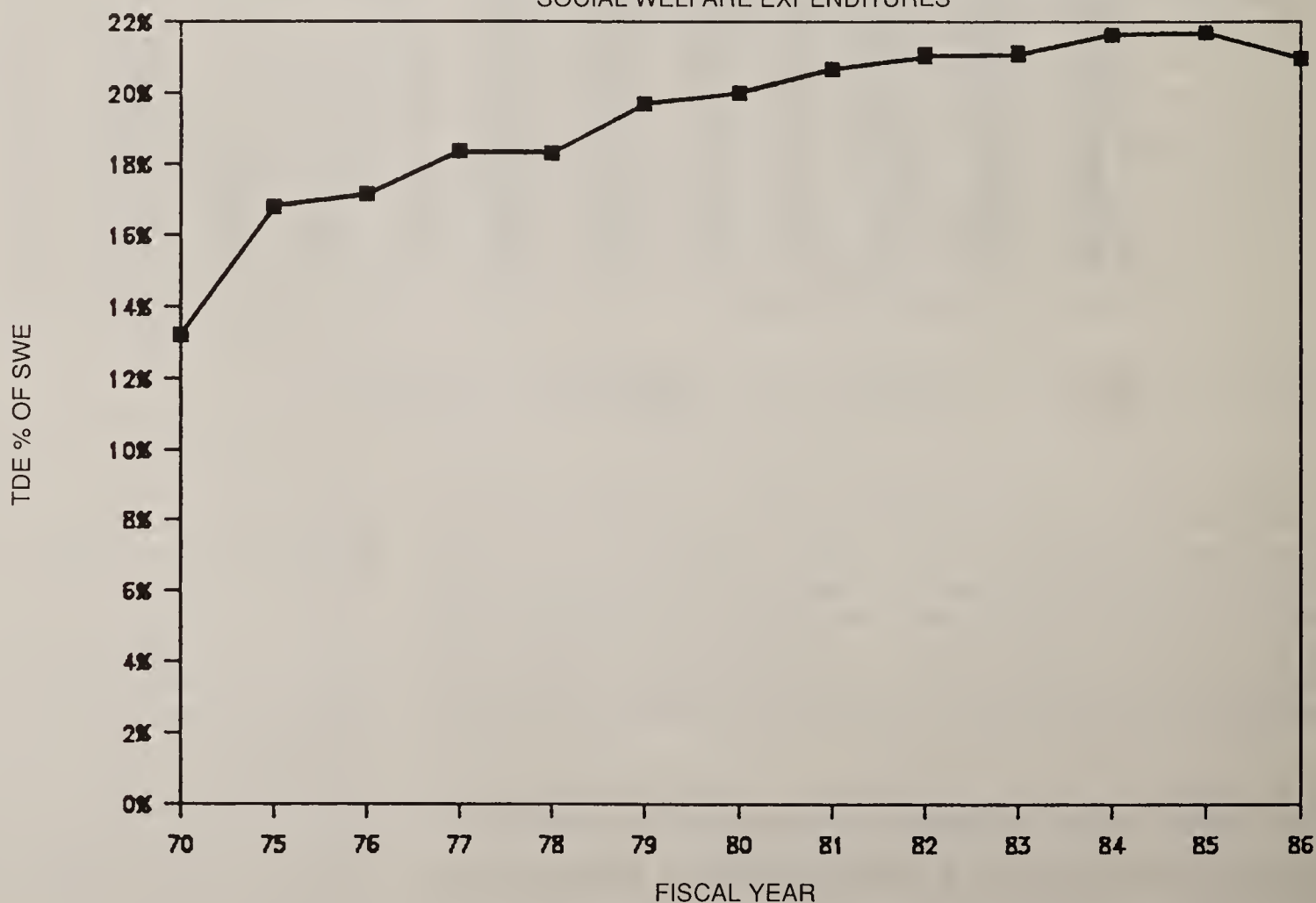
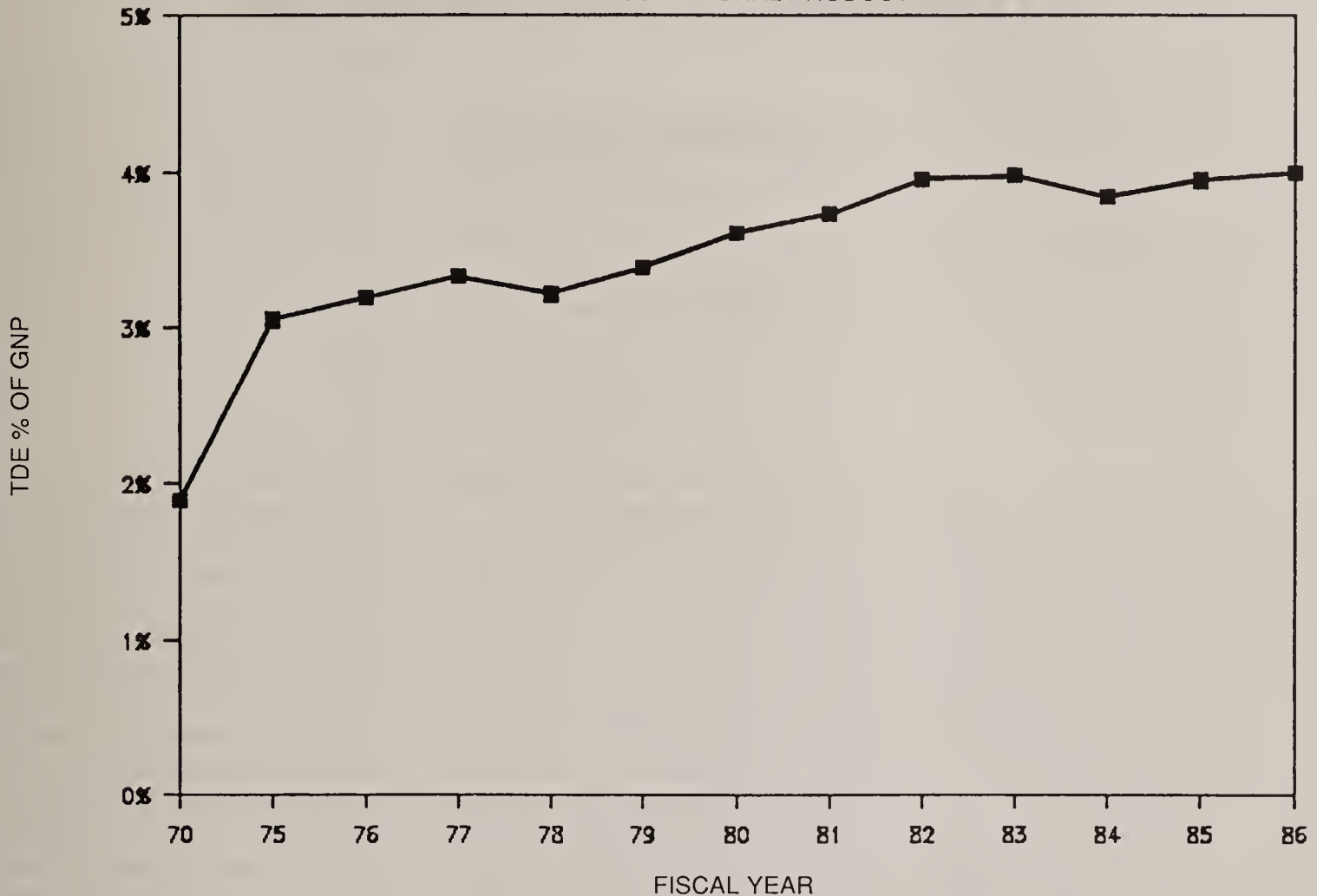


CHART 4

DISABILITY EXPENDITURES AS PERCENT OF GROSS NATIONAL PRODUCT



In deciding what to pay to whom, we look not only at the results of an injury or a disease, but why it came about and to whom it happened.

As with any other research endeavor, our look at disability expenditures raises as many questions as it answers. There is more work to be done here. We think that these measures could be improved. But the problems are more than inadequacies in the data. We have been working on these concepts for some time, but our measures are still crude, especially in the

services area. We need a model which will better explain the trends that have been experienced and that will help us forecast what will happen in the future.

The relationships between private sector and public sector programs are not well understood. In the last several years for which we have data, the private sector programs have been growing at a

more rapid rate than those in the public sector. In part, this is because of an increase in indemnity payments which arise from suits for payment for personal injury. Lawyers have long been interested in reforming the indemnity legislation, but those of us concerned with the social and economic consequences of disability have tended to ignore this area. Are increases in these indemnity programs to be encouraged, or would equity and adequacy considerations argue for a different allocation?

(Continued on page 29.)

Then and Now — Deaf People in Professional Employment

a book review

Edna P. Adler

A 20-year interval in research studies on the employment of any given group of people can reasonably be expected to show changes. Where the group being studied is as unique and special as deaf professional people and the time frame is 1960-1982 — a period of sharply increased public awareness of people with disabilities and great change in their socioeconomic conditions — the findings can be truly momentous.

Alan B. Crammatte, retired professor of Business Administration, Gallaudet University, in 1982 undertook a study of hearing impaired professionals as an activity of his appointment to the Powrie V. Doctor Chair of Deaf Studies, a Gallaudet Research Institute program. Mr. Crammatte had conducted an earlier study of deaf persons in professional employment in 1960 (*Deaf Persons in Professional Employment*, Alan B. Crammatte, M.A., Charles C. Thomas, Publisher, Springfield, Illinois) and wished to compare the hearing impaired professional and his employment status in that period with the hearing impaired professional of 1982. He set out to explore and analyze the impact of new opportunities opening to hearing impaired people in the wake of the expanding

public interest in disability and disabled people in the years 1960-1982.

In *Meeting the Challenge — Hearing Impaired People in the Workplace*, a 236-page book published in 1987 by the Gallaudet University Press, Mr. Crammatte has recorded in nine chapters and six appendices the research he performed to determine the extent hearing impaired people had advanced in the 1960-1982 era. Topics discussed include the professional environment, communication, education, job finding methods, working conditions, predictors of socioeconomic status, comparing the eras, and perspectives in employment. A time line in the prologue provides background on events occurring in the 1960-1982 period that accounted in large part for the progress made therein by the hearing impaired community.

A summary of the chapter, *The Professional Environment*, qualifies the 1982 survey respondents as true professionals under six separate headings: professional parentage; high level education; managerial, professional or technical occupation; median salary; job satisfaction; and professional and community services applications.

In Chapter Two, *Communication*, the author discusses employment situations

where particular modes of communication are and are not an asset to the hearing impaired professional, i.e.: the advantage of sign language skills in the fields of education, rehabilitation and other human services professions and in theater; the value of oral communication competency in hearing and speech oriented environments; and employment areas where communication in any mode is not a factor. Reference is made to the effects of early onset of hearing impairment on verbal language development and the possible impingement of lack of fluency in language on higher learning and professional accomplishments.

Chapter Three, *Education*, indicates that the great majority of the 1982 survey respondents received their basic training through education and that more than half of them are graduates of residential schools for the hearing impaired. That the hearing impaired person has to be better educated than his hearing counterpart to achieve a similar goal appears to be indicated in the fact that 92.7 percent of the survey respondents in professional and managerial positions had college degrees, while only 51.8 percent of their hearing peers had either completed or attended college. At every educational level, the

survey respondents' median salaries were less than the median earnings of the general population.

Job Finding Methods, Chapter Four, authored by Terry H. Coye, probes deeply into all of the methods hearing impaired people use in job finding, including preferred methods of communication.

In general, it was found that deaf professionals do not differ greatly from normally hearing professionals in use of job finding methods. One significant difference is that formal methods are used more often by hearing impaired professionals than by hearing professionals seeking employment in general business and that they confront more resistance from employers. It may be noteworthy that vocational rehabilitation placement services were not mentioned as a resource used by hearing impaired professionals.

Chapter Five, *Working Conditions*, opens with the statement that 62.9 percent of the survey respondents were employed in the field of education of the deaf. The difference between serving hearing impaired people and serving the general public is discussed. Factors such as communication ease, job satisfaction, extent of hearing impairment, education, salaries, relationship with co-workers, and discrimination are covered. The survey disclosed the median salary for hearing impaired professionals outside of the deaf field is higher than for their counterparts in the field of deafness and that promotions for them are more frequent.

Predictors of Socioeconomic Status, Chapter Six, authored by John G. Schroedel, reviews various surveys that have been made on hearing impaired and normally hearing groups and assesses the sociopsychological differences and similarities in the two populations. A sample difference cited was the lesser effect of parental social class on the educational and occupational achievements of hearing impaired people. A similarity was found in educational attainment as the most important predictor of an in-

dividual's occupational status in both groups. Underrepresentation of hearing impaired people in high-status professions was held responsible, in part, for their lack of socioeconomic equality in comparison to the hearing population.

Chapter Seven, *Comparing the Eras*, evaluates the findings of the 1960 and 1982 studies, some of the more significant being: hearing impaired professionals in 1982 working in hearing environments had more co-workers able to communicate with them in sign language; onset of hearing impairment in the 1960 group occurred mostly after age 6 and before age 6 in the 1982 group; doctorates were earned by 6.3 percent (92) of the 1982 respondents compared to 5.7 percent (5) of the 1960 group; more occupations were held by the 1982 group and the concentration in occupations of the two groups differed with more in executive and management related positions and science in 1982 and chemistry and engineering in 1960. In salary level, the 1982 group was a little better off. Use of interpreters by hearing impaired professionals was not mentioned in the 1960 study and telecommunication devices for the hearing impaired did not then exist.

Chapter Eight, *Perspectives in Employment*, authored by Steven L. Jamison, considers the advances that occurred in the 1960-1982 period in higher education opportunities for hearing impaired people and in industry awareness and acceptance of hearing impaired applicants and what remains to be done.

Chapter Nine, *Summary and Conclusions*, discusses the findings of the 1982 study in terms of implications. The remarkably high educational attainments of the respondents (92 doctorates compared to 5 in the 1960 group and many more master's degrees from an array of higher education institutions) should bring to an end non-acceptance of hearing impaired applicants at colleges and univer-

sities over the country; the steady increase in employment of deaf people in high level professional and managerial positions can be expected to create a growing market for the special skills they bring; the prediction in the chapter that "we shall probably see a hearing impaired university provost or president" has indeed occurred in the selection in 1988 of a deaf president at Gallaudet University. While prospects for continuing advancement of hearing impaired people in high level professional and managerial work in any area of service are quite positive, the future for those interested in teaching hearing impaired children is less bright. Accounting for this is the declining attendance at residential schools for the hearing impaired, long an employment mainstay for the majority of college and university trained hearing impaired people. The strong trend to mainstreaming all handicapped pupils is also reducing the employment opportunities of hearing impaired teachers. Implications for the upward mobility of hearing impaired professionals are also seen in the increasing availability of professional interpreters and the numerous high technology telecommunication devices becoming accessible to hearing impaired professionals and the prospects of more of them in the future.

Meeting the Challenge — Hearing Impaired Professionals in the Workplace by Alan B. Crammatte, with chapters by Terry H. Coye, Steven L. Jamison and John G. Schroedel, Gallaudet University Press, 1987, may be purchased at \$24.95 per copy through the Gallaudet University Press, Box 87, 800 Florida Avenue, N.E., Washington, DC 20002.

Mrs. Adler, formerly Assistant Chief, Deafness and Communicative Disorders Branch, Rehabilitation Services Administration, is now retired and living in Washington, D.C.

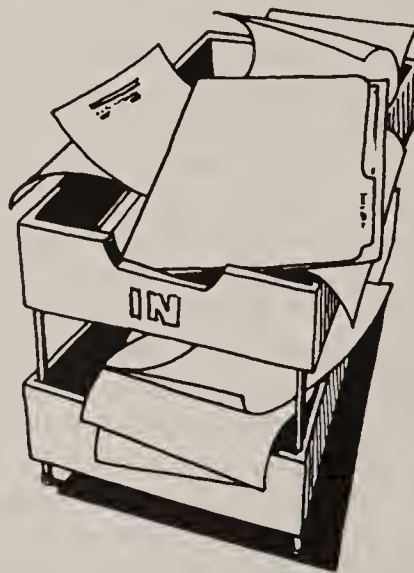
Information Management

for a rehabilitation client assistance program

Gary E. Holmes, M.L.S., M.S.
Susan E. Tabor, L.S.C.S.W.

Managing information in a client assistance program (CAP) follows the same general principles used in managing rehabilitation case records. These principles include accountability, documentation of needs and services, chronological case narratives, and support data for decisionmaking. In other respects, however, information management within a CAP differs because a CAP's mission in the rehabilitation services community is different. As it affects the rehabilitation client's life, CAP has the task of providing information about services, of helping to resolve conflicts as experienced by the client and, finally, of serving as an advocate for the client when conflicts cannot be resolved by the client without assistance.

CAP information management techniques are aimed at achieving these mission goals in a timely fashion so that rehabilitation efforts may continue with minimum disruption. Case information, as the basis for the CAP intervention decisions, is used to resolve issues to the client's satisfaction within the context of available rehabilitation resources, community resources, legal mandates, and agency policy. This context naturally includes consideration for the client's abilities, limitations, past history, and future goals during and beyond the rehabilitation program.



Gathering Information

Information management within the CAP, then, becomes a collection of methods and techniques that can be used to enhance the rehabilitation process by averting or solving problems arising within the service system. The proper management of such information does not require duplicating the case file, but instead requires the gathering of only that information related to the problem at

hand. That is, managing information begins here with gathering data that clarifies the problem or conflict. That information usually includes:

- the client's perception of the problem or the conflict;
- the service provider's perception of the problem or conflict (usually from the counselor);
- relevant policies, regulations and laws that might determine the outcome or resolution;
- similar past CAP cases that might suggest the most appropriate intervention strategy; and
- ways to help minimize other problems in the conflict aftermath period.

Quality and quantity of information influence management decisions and outcomes. This information helps the CAP accurately identify or define the issues central to the problem or conflict. From the moment a client requests assistance from the CAP, the management goal becomes one of gathering pertinent information in a form that can be used for intermediate decisions which collectively aid in solving the immediate problem or conflict. Information, if it is to be managed, must be in a form that can be used by the CAP in resolving the conflict. Otherwise, it is merely raw data, not information. So the gathering process includes an element of communication strategy as well. Infor-

mation from the client needs to be as clear and concise as possible. This often has the added benefit of helping the client better understand the problem because he or she is asked to verbalize it or to write about it as a concrete concept.

This plain explanation of the problem from each client helps minimize needless information that, in time, could overwhelm the CAP's filing capacity. Only the essential information is of immediate value to the CAP in that it serves as the basis for time management decisions and for case strategy decisions. The client's perception of the problem, as expressed by the client, helps the CAP predict informational needs that must be collected from other sources. These subsequent needs, too, are shaped by both quality and quantity appropriate for CAP intervention decisions.

Time and Resource Decisions

When clear or essential information from any source arrives at the CAP in useable form, it makes initial conflict assessment easier. Physical management of the information typically involves or generates the following steps:

- Intake, recording and storage (opening CAP case file).
- Summarization and evaluation (CAP case notations; including previous client attempts at resolution).
- Conflict assessment notations (CAP service predictions).
- Identification of other informational needs (initial CAP actions).
- Strategy planning for resolution (for client and CAP).
- Information dissemination planning (to engage external resources for client and CAP; other agencies that might assist in resolving conflict).

These steps help the CAP to establish case and management priorities and to budget its time or resources according to case demands. Once the CAP identifies and acquires the exact information needed to assist the client, case planning

becomes a matter of management by objective; the overall goal is achieved by satisfying intermediate objectives geared toward conflict resolution and client needs.

Information and Communication

Most CAP activities are characterized by brief interventions, discussions of the problem and suggestions for alternative solutions to the parties involved in the conflict. This is so for several reasons, one of which is that CAP strives to find timely solutions that will neither hamper the rehabilitation process for the client nor erode the rapport between client and

sometimes the counselor has failed to understand the client's needs and desires. Such misunderstandings usually emerge from problems common to human communication, problems that are most easily corrected through the introduction of precise and clear information.

The possibility that the conflict can be settled easily and quickly is related to the degree that the CAP can interject such information into the client-counselor relationship. Information managed to this end serves to bring the parties together. So the client assistance program offers information useful to both sides but does not make decisions for the client or for the counselor. By focusing its manage-

Information, if it is to be managed, must be in a form that can be used by the CAP in resolving the conflict. Otherwise, it is merely raw data, not information.

rehabilitation counselor or other service provider. As in the generalization that "form follows function," the information used by the CAP needs to be clear, accurate and as value-free as possible. This helps those involved in the conflict to see the problem from a mutual perspective arising from the sharing of objective information.

Another reason for brief interventions is that most client assistance programs do not have the mission or the resources to conduct rehabilitation programs. CAPs are not intended to compete with existing rehabilitation programs. Assistance to the client is brief and oriented toward problem solving, not toward long-term clinical intervention.

This functional role has a direct impact on the flow of information in and out of the CAP as well as upon the management of that information. In general, most clients seek assistance because they do not understand the rehabilitation system or because they have misunderstood the rehabilitation counselor. However,

ment attention upon information essential to the understanding and resolution of the problem, the CAP does not encourage an environment in which the client feels dependent upon CAP or in which the counselor views CAP as the "point of contact" with the client. Once the problem is resolved, the CAP can more easily withdraw from the client's case to assist in restoration of the client-counselor relationship, if its informational involvement has been limited to and focused upon the conflict and its issues.

From the perspective of information management, these outcomes are facilitated by prudent use of information during the period of conflict. Any CAP information about the client which does not violate rules of confidentiality should, with the client's permission, be shared with the rehabilitation counselor or other service provider involved in the conflict. The opposite is also true: information from the counselor should be shared with the client, as long as it does not jeopardize the counselor's role or bring harm to

By limiting its case information gathering activities only to that which is needed to understand and resolve conflict, the CAP accomplishes several other tasks.

the client. If such information is concise and value-free, it may be received by either party as "new information" that can help resolve conflicts that much sooner. So what the CAP does to manage information can also be considered as an attempt to reframe the communication strategies of the conflicting parties by offering proactive input. In this way, the CAP may help provide solutions merely by opening channels of communication between the parties again.

Information and Resource Conservation

By limiting its case information gathering activities only to that which is needed to understand and resolve conflicts, the CAP accomplishes several other tasks. The problem-specific information encourages CAP to resolve conflicts at the lowest possible level, a practice which is beneficial to the client and to the service delivery system because it save client time and agency money.

Additionally, this limitation reduces the effort and resources which the CAP must commit to the physical handling of information on paper. The savings in resources helps assure that CAP energies are available when needed for unexpected conflicts. This flexibility, as a goal of information management, also helps preclude the likelihood that an unexpected conflict will interrupt the CAP's daily planning and daily flow of information.

Most client assistance programs do other things, of course, besides conflict resolution. For example, a CAP may provide general information and referral services, technical assistance to rehabilitation providers and outreach projects for service consumers or communities. The streamlining of the informatio flow contributes to these other efforts by keeping

enough CAP resources available. For example, consumer information that has helped clients in the past might be maintained as a resource file; information on support groups, community facilities, and so forth, can be kept on hand for immediate use. Because these data would then be readily available, client questions would require less research time to answer.

System Feedback

In addition to information on specific cases, the CAP also acquires information over time that can be of value to the entire service delivery system. Again, by limiting the type and volume of information that comes into the CAP, resource managers may find it less difficult to analyze that information. Patterns and trends in client problems may be more quickly recognized or defined. For instance, if numerous clients have trouble understanding eligibility requirements or case closure procedures, this information, once identified by the CAP, can be put to good use by service managers and planners interested in improving communication between the clients and service providers. This also helps the CAP fulfill its mandate to provide system input about agency policy for evaluation and analysis.

The same sort of information on developing patterns among CAP clients can greatly assist individual counselors who want to function as effectively as possible. Individualized feedback can help the counselor recognize his or her own strengths and weaknesses and can contribute to the betterment of the rehabilitation process. Not surprisingly, the reverse is also true; feedback from counselors and other service providers can improve the CAP's own effectiveness. Once the CAP

has intervened to resolve a conflict, client-counselor rapport has been re-established or strengthened, and the rehabilitation process has resumed at its normal level, the counselor may gain important information about CAP services from client statements of satisfaction or dissatisfaction. In either instance, the information can be valuable to CAP managers interested in improving services. Similarly, the CAP can conduct followup activities that allow for client input into service evaluation.

Although low-level intervention for conflict resolution remains an important axiom, a better one is that of conflict prevention. The CAP activities which emphasize consumer education, communication strategies, technical assistance to providers, and system feedback represent a collective policy of information management aimed at conflict prevention. As most problems arise from communication failures of one kind or another, most solutions are to be found within improved commuication. Thus, the information which is disseminated through these activities provide knowledge from which can come better understanding. So in this way, potential conflicts and problems may be averted through improved communication of useful information about the delivery system.

Conclusion

This brief discussion has centered upon the notion that information management within a client assistance program remains a matter of collecting and using only that information which is directly related to problem or conflict resolution. When a client asks for help from a client assistance program, he or she usually has some particular problem in mind that needs resolving. Toward that end, the CAP identifies and gathers information which will be valuable in helping the client solve the immediate conflict, not information that more correctly belongs in the

(Continued on page 31.)

NEWS, NOTES, ANNOUNCEMENTS

Federal Court Rules: All New Buses Must Be Accessible

A federal court has ruled that all new buses purchased by transit systems in this country must be accessible to riders with disabilities.

The legal opinion, issued by Judge Carol Los Mansmann for the U.S. Court of Appeals for the Third Circuit, sitting in Philadelphia, affects every transit system in the nation that buys buses with assistance from the Department of Transportation. Judge A. Leon Higginbotham concurred in the decision. Judge Morton Greenberg wrote a dissenting opinion.

The decision reverses a ruling last year by U.S. District Judge Harold Katz, which upheld DOT's policy allowing transit systems the "local option" to provide public transit to people with disabilities by use of a paratransit system requiring prior reservations. A dozen disability rights organizations, led by Americans Disabled for Accessible Public Transportation (ADAPT) and Eastern Paralyzed Veterans of America, appealed the ruling, arguing that DOT's policy was discriminatory.

According to Wade Blank, head of ADAPT, "This is a major victory for disability civil rights in this country. Without accessible mainline public transportation, persons with disabilities can forget about equal opportunities for education, employment or recreation. This decision brings us what we've been seeking for quite some time."

The Court of Appeals wrote: "We find the goal of eradicating the 'invisibility of the handicapped' led Congress to enact measures to facilitate, if not immediate and complete mainstreaming of the

handicapped, then affirmative and aggressive steps in that direction." The court said that only by providing a mixed system of accessible buses, in addition to paratransit services for those unable to use accessible buses, can all persons with disabilities be assured adequate transit services.

The court also said that because its ruling was limited to new purchases of lift equipped buses, transit systems would not be subjected to any "undue burdens" by the decision.

The court remanded the case to DOT for issuance of new regulations requiring accessible buses "forthwith."

Timothy M. Cook, Director of the National Disability Action Center in Washington, the attorney who argued the appeal for ADAPT, expressed optimism that DOT would not take the case to the Supreme Court. "This opinion is completely consistent with President Bush's call last week, in his speech before the Congress, for Americans with disabilities to be 'in the economic mainstream.' Nothing is more essential to meeting that goal than the provision of accessible public transportation," Cook said.

SHHH Convention Set for June 30 - July 3

The Fourth International Convention and 10th Anniversary Celebration of Self Help for Hard of Hearing People, Inc. (SHHH) will be held June 30 - July 3 in Bethesda, Maryland — home of the SHHH national office and moments away from the Nation's Capital. Convention headquarters is the Hyatt Regency Bethesda. A huge success is planned as over 1,000 hearing impaired people, professionals and exhibitors will be par-

ticipating in the event.

The 5-day convention will include workshops and mini-seminars conducted by professionals from the hearing health care field. Topics include coping strategies, communication techniques, assistive devices, hearing aids, SHHH chapters, parents' programs, hearing ear dogs, medical issues, speechreading, and much more. Continuing education credits will be available to qualified professionals.

The SHHH Convention has one of the largest exhibits in the country for hearing impaired consumers. Manufacturers will be in the exhibit hall for hands-on testing of assistive listening devices; companies representing hearing aids, TDD's, caption decoders, alerting devices, cochlear implants, publications, and services for hearing impaired people will also be available.

Postmaster General Anthony M. Frank will be the keynote speaker at the general assembly on June 30. He is responsible for the nation's largest employer of hearing impaired people and has a bilateral sensorineural hearing loss. Surgeon General C. Everett Koop will receive the Walter T. Ridder Award at the farewell banquet on July 3 for his leadership in the area of hearing impairment.

A Capitol Hill reception will be held in the Caucus Room of the U.S. House of Representatives. Members of Congress, influential people in the self-help movement and convention goers will attend. Other activities include tours of the SHHH national headquarters and Gallaudet University, big band dancing at the Hyatt Regency, moonlight tour of Washington, D.C., and children's festivities, including a trip to the National Zoo, a pool party and tours before and after the convention to Mount Vernon, Williamsburg, Annapolis, and Baltimore's Inner Harbor.

Self Help for Hard of Hearing People, Inc. is a nonprofit, educational organization for hard of hearing people, their relatives and friends devoted to the

welfare and interests of those who cannot hear well.

Call or write for exhibitor information or pre-registration materials. (On site registration also accepted.) For more information contact: Elaine Hill, Convention Coordinator, 7800 Wisconsin Avenue, Bethesda, Maryland 20814. (301) 657-1239 (voice), (301) 657-2249 (TDD).

AFB Establishes Legislative Network

Need information on legislative issues affecting blind and visually impaired people? The American Foundation for the Blind (AFB) has established the "AFB Information Network" to provide timely and accurate details on legislation and regulations of concern to blind and visually impaired people, their families and friends, and professionals in the blindness field.

"Individuals can make a difference on Congressional decisions if their efforts are linked to those of likeminded people," according to Scott Marshall, director of AFB's Governmental Relations Department which manages the program. "Often, however, people are too busy to obtain the information they need, or they simply don't know how to go about getting it. The Information Network solves these problems."

To enroll in the Network, write American Foundation for the Blind, Governmental Relations Department, 1615 M Street, NW, Suite 250, Washington, D.C. 20036 or call Alan Dinsmore, Legislative Network Coordinator, at (202) 457-1495. You will receive a card listing a wide range of concerns, from aging and appropriations to transportation and voting accessibility.

Indicate on the card which issues interest you, and about six times a year the Network will publish alerts targeted to the issues you select. These alerts will tell you succinctly what the legislation or regulation is, what advocates are doing about

it, and specifically how you can be involved. If you notify the Network that you responded to an alert, you will receive a followup report that tells you the results of your advocacy efforts.

Information from the Network will be sent by first class mail. In addition, all alerts will be posted on popular electronic information databases. Customary connect time charges apply.

The American Foundation for the Blind is a national, nonprofit organization that advocates, develops and provides programs and services to help blind and visually impaired people achieve independence with dignity in all sectors of society. AFB maintains regional centers in Atlanta (Southeast), Chicago (Midwest), San Francisco (Western), Dallas (Southwest), New York City (Northeast), and Washington, D.C. (Mid-Atlantic).

Disability Management Conference Scheduled

The Washington Business Group on Health's Institute for Rehabilitation and Disability Management and Thomas L. Jacobs and Associates is sponsoring the Second Annual National Disability Management Conference October 23-24 at the Doral Resort and Country Club in Miami, Florida. The conference convenes about 350 participants from business, insurance, government, unions, and medical and service providers to discuss cost-effective ways to manage disability at the workplace and exchange creative strategies for returning disabled employees to productive employment.

The Washington Business Group on Health (WBGH), a national, nonprofit coalition of 200 major companies, established the Institute for Rehabilitation and Disability Management (IRDM) to assist companies in implementing strategies for retaining and hiring employees with disabilities. IRDM is a partnership of WBGH and the National

Rehabilitation Hospital. Thomas L. Jacobs & Associates (TLJ), founded in 1915, is a management consultant firm with specialties in employee benefits, cost containment and disability benefit program administration.

For more information, contact Elise Lipoff at (202) 547-6644.

Technology Conference Scheduled August 9-12

The Association on Handicapped Student Services Programs in Postsecondary Education (AHSSPPE) is holding its 12th National Conference at the Sheraton Hotel and Towers in Seattle, Washington, on August 9-12.

The conference theme, "Reaching New Heights," will focus on the latest technology and techniques in the field. Some of the most prominent researchers and educators will provide stimulating information on legislation, transition strategies, learning disabilities, computer assisted instruction, and program evaluation.

AHSSPPE is a nonprofit professional organization with more than 850 members representing more than 500 institutions in the United States, Canada and other countries. The association works to promote full participation by people with disabilities on college campuses.

The annual conference is an opportunity for educators to develop and expand communication with other professionals in the field of disabled student services and to learn about issues and concerns affecting service providers, students and administrators in postsecondary education.

For additional information regarding the conference or AHSSPPE, contact Jane Jarrow, P.O. Box 21192, Columbus, Ohio 43221, (614) 488-4972 (Voice/TDD).

Report Cites Shortage of Rehab Professionals

The diminishing pool of physical and occupational therapists and rehabilitation nurses is quickly reaching crisis proportions, according to *Crisis Ahead: Recruitment and Retention of Rehabilitation Professionals in the Nineties and Beyond*, a report issued by the Professional Advisory Council of the National Easter Seal Society.

"A simple ad in the Sunday paper to fill a vacancy is no longer good enough," said John R. Garrison, Chief Executive Officer of the National Easter Seal Society. "If rehabilitation professional shortages continue to become widespread, then the very mission of rehabilitation becomes jeopardized."

The "rehab flight" dilemma can be summed up as an inequality of supply and demand. In almost every area of expertise, demand is increasing and supplies in certain professions are shrinking. The report states that both elements of the equation seem to be out of control.

The increase in needed services stems largely from medical technological advances in recent years. Increasing numbers of people are living into old age, often with multiple disabilities. Those born with disabilities and those who experience accidental trauma are surviving at greater rates. In addition, the growing awareness of the rights and needs of people with disabilities is increasing the demand for occupational therapy that will allow them to live independently. Significant federal legislation mandating the provision of occupational therapy services is contributing substantially to this demand.

While the need for rehabilitation is growing, the supply of occupational therapists has leveled off with approximately 2,300 therapists and 900 assistants

entering the field each year. In the area of physical therapy, the nation will need 42 percent more physical therapists than are currently employed, according to a 1984 Brandeis University Health Policy Center prediction. Bureau of Labor statistics indicate that physical therapy will be the third fastest growing occupation through the year 2000. The situation in rehabilitation nursing is exacerbated by the general shortage of nurses.

The answers, according to the Easter Seal report, lie in both recruitment and retention. Creative efforts are proposed to attract new people in the areas needed; this includes greater use of direct mail, newspaper, radio and TV advertisements, professional and staff recruiters, sign-on bonuses, free housing, and participation in exhibits and open houses. A major effort should be directed toward showing young people the potentials of a career in rehabilitation.

Efforts at retention may include: day care programs, part-time employment and job sharing, expanded career ladders, education and in-service programs, higher reimbursement, as well as greater participation in patient management.

Approaches for tapping unused talent include: attracting minorities, encouraging retired therapists to re-enter the profession, and awarding scholarships and/or stipends to students in exchange for rehabilitation work.

"Easter Seals is acting now to meet this imminent shortage of rehabilitation professionals," said Garrison. "Not to change or develop creative approaches now would almost certainly mean serious understaffing in the years just ahead."

Brochures on rehabilitation and physical and occupational therapy are available from the National Easter Seal Society.

Rehabilitation professionals and those interested in entering the field of rehabilitation who want more information can contact the Easter Seal affiliate in their community or the National Easter Seal Society at 70 East Lake Street, Chicago, Illinois 60601.

The National Easter Seal Society is a nonprofit, community-based health agency dedicated to increasing the independence of people with disabilities. Easter Seals makes a difference in the lives of disabled adults, children and their families by offering a wide range of quality services, research and programs. Easter Seals is in the forefront of advocacy efforts on behalf of people with disabilities. Through 200 nationwide affiliates, more than a million people receive Easter Seal services each year.

Transportation Funds

The Department of Transportation has two programs that can be used to help fund or provide transportation services for people with disabilities.

Under Section 16(b)(2) of the Urban Mass Transit Act, DOT is authorized to make grants to nonprofit organizations and associations for the specific purpose of assisting them in providing transportation services in meeting the special needs of elderly and handicapped persons for whom mass transportation services are unavailable, insufficient or inappropriate.

Funds under Section 16(b)(2) are available for capital expenditures such as vans, busses, wheelchair lifts, etc. Funds are not available for operating expenses.

Section 18 of UMTA is the other potential source of funding for transportation services to people with disabilities.

Results of the VENUS Project:

Increasing program utilization of vocational services

Sherry Deren, Ph.D.
Joan Randell, M.A.

The VENUS Project was a 3-year research project developed to identify the major obstacles to the provision of vocational rehabilitation (VR) services by drug treatment programs and to develop and evaluate strategies for overcoming them. The project was initiated because the literature on VR services for drug abusers had indicated that, although there is a positive relationship between the provision of these services and client progress, many programs underutilize available VR services. The work of this project has been reported in seven papers, which are listed at the end of this article. This article provides a brief summary of these papers, as well as conclusions and recommendations based on the entire project.

Brief Project Summary

This project was organized into two major phases:

Phase One: Identifying the Obstacles

Three data sources were used to identify obstacles to VR service utilization: a review of literature that relates to delivery of vocational and educational (V/E) services; secondary analyses of a national study of clients in treatment, focussing on clients' reported V/E needs and services; and a field study in four methadone maintenance clinics¹ in New York City, which included interviews with staff and clients.

Many obstacles to the use of vocational services were identified in the literature review; these were summarized into three categories: client level obstacles, which included the impact of public assistance and client fears; program level obstacles, which included the treatment orientation of many programs and the lack of train-

ed professionals; and societal level obstacles, which included gender related stereotypes and perceptions of employer biases.

Data from the national study of clients in treatment (Treatment Outcome Prospective Study, or TOPS, funded by the National Institute on Drug Abuse) indicate that although clients are about as likely to express the need for educational and vocational services, they are more likely to report receipt of educational services. In addition, the gap between reported need and reported receipt of V/E services in the first 6 months of treatment was between 20 and 50 percent, depending on client type. The TOPS analyses also suggests that certain client groups are more likely to report a need for services (e.g., younger clients, those without diplomas, minorities) and certain groups, including housewives and black clients, may be disproportionately underserved.

Interviews with clinical and administrative staff in the four methadone clinics focussed on the key program and staff issues affecting the utilization of services. It was found that few counsellors reported having received training in vocational rehabilitation. In addition, the critical obstacles cited by staff were understaffing, client-related problems and inadequate community service providers. There were also several indications that V/E services are given a low priority compared with other service areas. In clinics with greater V/E involvement, staff or clients indicated that there was some mechanism to engage clients in vocational services.

Interviews with a sample of clients in the four methadone clinics addressed such areas as the types of vocational services they received, their perception of obstacles to the use of vocational services and the client characteristics which may affect use of services. Although most clients reported receiving vocational counseling in their treatment programs, many desired concrete vocational services, such as training, education or job placement. Furthermore, based on client interviews, about half of the clients indicated that they had no vocational aspirations or it was determined that they had an unrealistic vocational goal. This would indicate the need for further vocational counseling. These interviews also indicated that clients

believed that the primary obstacles to V/E involvement were low client motivation, typically tied to other issues (e.g., drug usage, welfare dependency and fear of work). In addition, clients receiving public assistance and working off-the-books (undocumented, or being paid "under the table") were generally doing better financially than persons legitimately employed.

Based on the first year's findings, it became clear that a broad range of obstacles was operating. Data from these efforts were summarized and presented to a panel of experts. The panel included members from a variety of relevant perspectives (local and out-of-state program administrators, fiscal experts, researchers and practitioners involved in vocational rehabilitation of substance abusers, a federal representative of the President's Committee on Employment of People with Disabilities, and an organizational psychologist). Panel members met for 2 days and were asked to select obstacles which were critical to the underutilization of vocational services, amenable to strategies or interventions which would be likely to have an impact on utilization of vocational services, and "doable" within the time and resource limitations of the project. Two classes of obstacles were identified by the panel and formed the basis for the interventions developed during Phase Two. These obstacles were:

- the presence of fiscal disincentives (and the lack of sufficient incentives) to program, staff and clients for increasing use of and involvement in vocational services; and
- the fact that vocational rehabilitation is not currently viewed as integral to treatment.

Phase Two: Implementing and Evaluating Strategies

Based on the recommendations of the panel, the following 1-year interventions were planned:

● **Intervention 1: Removal of Medicaid Disincentive.** Existing Medicaid reimbursement policies were identified as a potential disincentive for programs to providing vocational services, since Medicaid covered clients tend to generate more income for programs than non-Medicaid (e.g., employed) clients. The Medicaid intervention involved developing a contractual agreement between the New York State Division of Substance Abuse Services (DSAS) and the participating programs and committing DSAS to make up for Medicaid losses (up to a specified amount) incurred by participating programs due to increased V/E involvement of clients.

. . . efforts which undertake one initiative at a time . . . are unlikely to lead to major changes by themselves.

● **Intervention 2: Integration of Vocational Services in Treatment.** It was decided that, to increase the integration of vocational services in the overall treatment process, specific personnel were needed in programs for these purposes. These people, called *vocational integrators*, would be responsible for working with existing program staff in analyzing current clinic policies that might affect service provision and developing methods to increase client V/E involvement. They would also provide staff with assistance in accessing technical resources and enhancing vocational counseling.

Two vocational integrators were hired, trained and placed in methadone clinics. Training dealt with such areas as review of literature regarding vocational service delivery in drug treatment, training regarding the types of services provided by local agencies, and methods of dealing with anticipated "resistance" in the clinics. The components identified as needed for integration to occur, which were the focus of the integrators' efforts, were:

- a raised sense of the importance in the clinic of V/E services as part of its overall mission;
- the development of staff skills and knowledge of resources needed to address client V/E needs; and
- implementation of clinic policies and procedures that facilitated coordination and accountability.

Four methadone maintenance clinics in New York City (who did not participate in Phase One) were recruited for a 1-year implementation and evaluation of these interventions. A 2X2 factorial design was used where one clinic just had the Medicaid disincentive removed, one just had the vocational integrator, one had

both interventions, and one control clinic received no intervention.

Monthly information was collected regarding clients' Medicaid status, vocational activities and vocational status. Three times during the study year (every 4 months) a summary of the compensation to be provided by DSAS (for the two clinics in the Medicaid compensation intervention) was prepared and shared with the programs' administrative staff and members of DSAS.

Based on baseline data collected on clients in the study clinics, a new approach to categorizing the vocational status of clients was developed. This method took into account the competing factors (e.g., poor health, unstable housing, childcare needs) likely to be experienced by many clients. It was found that although most clients with "competing" factors were not engaged in full-time V/E activities, a substantial number were able to become vocationally involved at least on a part-time basis. In addition, many full-time V/E involved clients had criminal histories similar to other clients, thus in-

Based on the first year's literature review and field study, a panel of experts identified fiscal disincentives (and lack of incentives) to programs and clients as one of the two most important classes of obstacles.

dicating that this is not necessarily a major obstacle.

Results of the intervention study indicated that the vocational integrator intervention was related to an increase in client involvement in vocational activities but no significant change in vocational status. It is likely that status changes (e.g., from unemployment to employment) require a longer time period than was available in this study. The Medicaid intervention, contrary to expectations, was related to a small decline in activities and status, perhaps because staff became sensitized to the Medicaid issue and the need to maintain accurate records to facilitate the collection of fees for Medicaid clients.

Additional results indicated that many clients move up or down in vocational status during a 1-year period, regardless of interventions. This may be contributed to the lack of larger differences which could be attributable to the intervention. Conclusions of the intervention study were that:

- although the vocational integrator had an influence on vocational activities, the addition of a vocational counselor to provide direct services and a longer time period for intervention and subsequent assessment are needed to obtain increases in vocational status which can be sustained; and
- efforts to impact on fiscal disincentives were not simple to effect and opportunities to explore various methods to remove fiscal disincentives for programs and for clients are needed.

Conclusions and Recommendations

These conclusions and recommendations are based on all aspects of the study,

including the literature review, the TOPS data analysis and the eight methadone clinics that participated in the Phase I field study and the Phase II intervention study. Because this study primarily focused on the methadone maintenance modality, the findings and recommendations are not necessarily generalizable to other modalities.

Obstacles to Greater Utilization of Vocational Services

Based on a literature review and field studies in methadone clinics, this project documented a wide range of obstacles to vocational service utilization operating on the client, program and societal levels. Many of these obstacles are not unique to the drug treatment system.

Efforts to impact on these obstacles must take into account that obstacles operate on several levels and that efforts to increase utilization of vocational services are more likely to be successful if they address more than one level. Thus, efforts which undertake one initiative at a time (e.g., to simply provide more vocational information to counselors, send new policies to be implemented by programs, or place a vocational counselor on staff) are unlikely to lead to major changes by themselves. Efforts to increase client involvement in VR activities and enhance program delivery of these services require more complex interventions and the long-term commitment of funding agencies and programs.

Based on the first year's literature review and field study, a panel of experts identified fiscal disincentives (and lack of incentives) to programs and clients as one of the two most important classes of obstacles.

In the research, the concern about the loss of Medicaid and welfare benefits to clients was cited by many clients and staff. In addition, clients who were on welfare and engaged in unverified employment were among the most stable workers and had the highest net incomes.

Impacting on this obstacle, which has been inherent in the welfare system, appears needed to enhance client ability to move toward legitimate employment. The recently passed welfare reform legislation may help to reduce this disincentive for clients. In addition, programs may also be able to reduce this disincentive by developing vocational service capability which would motivate and enable clients to obtain higher salaried positions.

Treatment staff did not identify fiscal disincentives to programs as one of the important obstacles, and the method used to reduce a potential fiscal disincentive for programs did not have the anticipated effect. Fiscal concerns are no doubt important to all service agencies, but it may be that providing incentives to programs, with or without directly addressing any potential disincentives, may be a more useful strategy.

Data from the first year's study indicate that vocational services are not integrated into drug treatment. This lack of integration was the other important class of obstacles which emerged from the blue-ribbon panel deliberations. The panel identified several elements as indicative of this lack of integration, and the clinic studies repeatedly came across examples of this obstacle.

The three major areas used to define integration were:

- a sense of importance and emphasis on the V/E function;
- skills of counselors and knowledge of resources to address client VR needs; and
- policies and procedures that facilitate accountability and followup of VR service delivery.

It is recommended that efforts to in-

tegrate vocational activities in programs take these three areas into account. The types of activities undertaken in each of these areas can include, respectively, the establishment of a "Vocational Committee" within a clinic, developing linkages with local vocational service agencies, and review of existing clinic procedures to develop those that promote VR activities.

Vocational Services Provided in Treatment Programs

The majority of clients reported receiving vocational services (most frequently, vocational counseling). However, many clients reported that they wanted other types of services (more concrete vocational services, such as training and education). In addition, there were indications that counseling staff were not sufficiently familiar with vocational service delivery to provide adequate services (e.g., few used resources available, assessments were not done properly or systematically).

Even when vocational services are provided, the quality of services may need upgrading. Efforts are needed to monitor programs, not only for the existence of V/E services, but also for the quality of service provision. In addition, program administrators may need training to recognize quality vocational services and to hold their staff accountable for providing them. Additional efforts to train staff in vocational service delivery and resource development is recommended.

Clients' Likelihood of Vocational Improvement

Although the majority of clients who were involved in full-time documented jobs and those who were uninvolved vocationally (with some explanation) tended to be in the same category 1 year later, the majority of those who were marginally involved or not involved (with no explanation), did move vocationally and were almost as likely to go up as to go down in vocational status. This in-

dicates a certain fluidity of vocational status among many clients and, thus, the potential of directed movement, with assistance. In addition, even clients in the more stable category (full-time documented job) may need vocational assistance to keep from falling back in vocational status.

Clients Who Can Become Vocationally Involved

It was found that clients with various types of competing factors (e.g., current drug abuse, primary caretaker) could also be involved in vocational programming and employment. Analyses from a nationwide study indicated that there was a substantial discrepancy between the

cur if staff is asked to take on what are perceived as additional duties, if staff feel overburdened and stressed with current duties.

Any plans to impact on vocational services must take this resistance into account. Methods of reducing resistance may include eliciting staff assistance in developing the intervention and ensuring that there is full administrative support before undertaking the intervention. In addition, to maintain the continuation and quality of an intervention, followup, technical assistance and monitoring mechanisms must be developed.

Clinics with more clients involved in vocational services were found to have clear, enforced policies regarding the in-

. . . many clients reported that they wanted other types of services (more concrete vocational services, such as training and education).

percentage of clients in treatment who identified vocational services as a need and the percentage of clients who received this service. Among the most underserved population were blacks, older clients and females — populations which may be stereotypically seen as less likely to benefit from vocational services.

Whole categories of clients should not be automatically excluded from vocational assessment and planning. Instead, planning should be individualized based on client needs. In addition, assessments should be undertaken at various intervals: clients who may not be able to engage in vocational services at one point in treatment may be more amenable to these services at a later time.

Increasing Utilization of Vocational Services

As with most efforts to change how systems operate, efforts to impact on how a clinic functions in terms of vocational service delivery is likely to meet with resistance. This is even more likely to oc-

cur if staff is asked to take on what are perceived as additional duties, if staff feel overburdened and stressed with current duties.

Any plans to impact on vocational services must take this resistance into account. Methods of reducing resistance may include eliciting staff assistance in developing the intervention and ensuring that there is full administrative support before undertaking the intervention. In addition, to maintain the continuation and quality of an intervention, followup, technical assistance and monitoring mechanisms must be developed.

Recommendations for Future Interventions

It is recommended that some combination of the vocational integrator model (working to integrate vocational services into the treatment system) and a vocational counselor (to provide direct ser-

Clinics with more clients involved in vocational services were found to have clear, enforced policies regarding the involvement of clients in vocational services.

vices) would be a desirable intervention. The vocational integrator focuses on clinicwide issues regarding vocational services and would provide methods to increase the emphasis on vocational services; help develop the skills of counselors regarding vocational assessment, planning and counseling; and recommend needed changes in clinic policies and procedures. The vocational counselor would provide direct services to clients (e.g., testing, referral, etc.) as well as outreach to hard to reach clients. This model could provide the short-term immediate activities attainable by a vocational counselor working directly with clients, deal with staff concerns regarding the need for vocational staff assistance and provide for planning and developing methods to impact on the clinic's long-term ability to further VR service delivery.

Dr. Deren formerly was Chief of Evaluation, New York State Division of Substance Abuse Services; currently, she is Principal Investigator with Narcotic and Drug Research, Inc., 11 Beach Street, New York, New York 10013. Ms. Randell is Assistant Deputy Director for Program Services, New York State Division of Substance Abuse Services.

Project Research staff consisted of Dr. Deren and Ms. Randell, Co-Principal Investigators; Lorinda Arella, Ph.D., Project Director; and Vincent Brewington, M.A., Research Assistant.

This project was funded by Grant No. DA03407 from the National Institute on Drug Abuse, U.S. Department of Health and Human Services, awarded to Narcotic and Drug Research, Inc., and conducted in cooperation with the New York

State Division of Substance Abuse Services. Requests for more detailed information on the project should be addressed to Dr. Deren.

The opinions expressed herein do not necessarily represent the views of the Department of Education, the Department of Health and Human Services, the New York State Division of Substance Abuse Services, or Narcotic and Drug Research, Inc.

Footnotes

1) The methadone maintenance modality is based on an outpatient medical model. Methadone is a synthetic opiate prescribed for daily consumption by clients with an established history of opiate addiction. Methadone maintenance is considered long-term or lifetime treatment for most clients entering this modality.

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2) Arella, L., Deren, S. and Randell, J. Issues Affecting the Utilization of Vocational/Educational Services in Drug Treatment.

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7) Arella, L., Deren, S., Randell, J. and Brewington, V. Increasing Utilization of Vocational Services: Results of a 1-year Intervention Study.

Number of Disabled Federal Employees Shows Increase

The annual report issued by the U.S. Equal Employment Opportunity Commission for the fiscal year ending Sept. 30, 1986, shows a slight increase in the number of people with disabilities on the federal payroll. On Oct. 1, 1985, there were 161,000 people with disabilities employed by the Federal Government; 162,388 were employed as of Sept. 30, 1986.

This represents 5.61 percent of the total federal work force, an increase of .04 percent. For more information or a copy of the report, contact: Clayton Boyd, EEOC, 2401 E St., N.W., Washington, D.C. 20507.

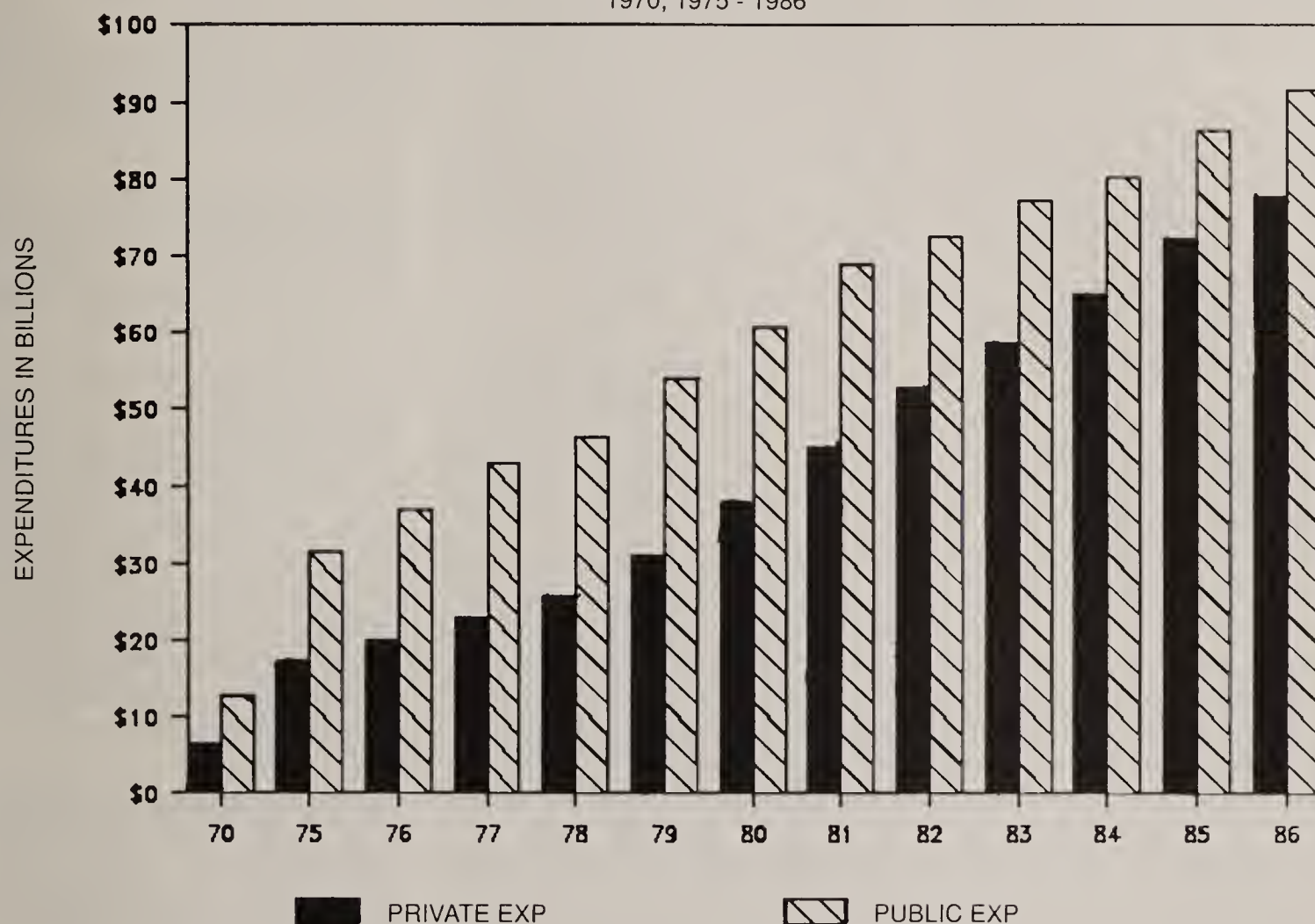
Family Interventions Throughout Chronic Illness and Disability. Volume 7 in the Springer Series on Rehabilitation. Editors: Paul W. Power, Sc.D., C.R.C., N.C.C.; Arthur E. Dell Orto, Ph.D., C.R.C.; and Martha Blechar Gibbons, R.N., M.S., C.P.N.P. Springer Publishing Company, 536 Broadway, New York, NY 10012. Telephone: (212) 431-4370. 320 pages. Hardcover, \$31.95.

This book suggests how appropriate interventions can put an illness or disability into perspective and how an intervention can create an option for the family to live its life as fully as possible.

CHART 5

PRIVATE AND PUBLIC SECTOR EXPENDITURES

1970, 1975 - 1986



Expenditures

(Continued from page 15.)

In some global sense, as Calabresi and others² have argued, society makes two kinds of decisions in this world of limited resources. The first order decision is to decide how much of our goods and services should be allocated to disabled people; the second order decision is to decide how to divide the sum which has been allocated among all qualified people. It goes without saying, that, to the true

disability advocate, whatever is allocated will not be enough; but looking at aggregate disability expenditures forces us to examine whether we are making these second order allocation decisions in the best possible way.

Dr. Berkowitz is Professor of Economics, Rutgers University; Ms. Greene is Research Associate at the university.

References

- 1) The research project (G008300151),

funded by the National Institute on Disability and Rehabilitation Research, not only examined disability expenditures, but various methods to determine the impact of the state-federal vocational rehabilitation programs. In this article we look only at the work done on disability expenditures.

- 2) Calabresi, Guido and Philip Bobbitt, *Tragic Choices*, Norton Publishers, New York, NY, 1978.

PUBLICATIONS & FILMS

Managing Your Diabetes With Vision Impairment and American Diabetes Association (ADA) Diet Exchange Lists. To order, write to: Lynne Luxton, National Consultant in Rehabilitation Teaching, American Foundation for the Blind, National Task Force on Diabetes and Vision Impairment, 15 West 16 Street, New York, New York 10011. Two audiocassettes, \$4. Make checks payable to the American Foundation for the Blind.

Tapes feature general information about diabetes management, preventive care, insulin and blood glucose monitoring, an exercise program, a listing of suggested reading, resources and devices, the American Diabetes Association's diet guidelines, and the cholesterol, fat and caloric content of various foods.

Integration of Developmentally Disabled Individuals into the Community. Second edition. Edited by Laird W. Heal, Ph.D., Janell I. Haney, and Angela R. Novak Amado, Ph.D. Paul H. Brooks Publishing Company, P.O. Box 10624, Baltimore, Maryland 21285. 368 pages. Softcover, \$24.95.

Written for direct service providers, facility administrators, teachers, scholars, and policy makers, this book examines the current state of community integration, including the advancement and reassessment of the deinstitutionalization movement.

Everyone Can Win: Opportunities and Programs in the Arts for the Disabled. Anne and George Allen. EPM Publications, 1003 Turkey Run Road, McLean, Virginia 22101.

Describes opportunities in dance, drama, music, puppeteering, painting, drawing, sculpture, and prose and poetry

writing and tells how many disabled people use these art forms for personal and professional satisfaction. The book also features interviews with famous artists, such as Stevie Wonder, Itzhak Perlman and dancer Gwen Verdon, as well as addresses of programs, organizations, publications, and helpful products and services, such as voice indexing on audio cassettes for blind people.

Therapeutic Claims In Multiple Sclerosis. Second edition. William A. Sibley, M.D. Demos Publications, 156 Fifth Avenue, Suite 1018, New York, NY 10010. 198 pages. Hardcover, \$19.95; softcover, \$11.95.

This edition provides information on multiple sclerosis, its causes and treatment and recent developments. Opinions expressed about the general usefulness, or lack of usefulness, of various therapies are those of the Therapeutic Claims Committee of the International Federation of Multiple Sclerosis Societies and are based on information available from a variety of sources, published and unpublished, and collective personal experience.

Living Skills for Mentally Handicapped People. Christine Peck and Chia Swee Hong. Paul H. Brooks Publishing Company, P.O. Box 10624, Baltimore, Maryland 21285. 222 pages. Softcover, \$20.

Focusing on increasing the quality of life and independence of people with mental disabilities, this book offers suggestions to help clients develop basic skills such as walking, hand function and communication; intermediate skills such as play, interaction and self care; and advanced skills such as literacy, numeracy and social skills.

Federal Policy Toward Mental Retardation and Developmental Disabilities. David Braddock, Ph.D. Paul H. Brooks Publishing Company, P.O. Box 10624, Baltimore, Maryland 21285. 224 pages. Hardcover, \$29.95.

Offers detailed information on federal legislation, policymaking and spending trends in the mental retardation and developmental disabilities field.

The Rehabilitation Detectives: Doing Human Service Work. Paul C. Higgins. Sage Publications, Inc., 2111 West Hillcrest Drive, Newbury Park, California 91320. 240 pages. Hardcover, \$28; softcover, \$14.

Through detective work, vocational rehabilitation counselors serve people with vocationally handicapping disabilities. Like law enforcement detectives, these counselors work cases to establish their clients' eligibility for services. Using extensive participant observation in a nationally recognized agency, the author explores the social world within which counselors work, the concerns they face and the practices they employ.

The Kids on the Block Book Series. Barbara Aiello and Jeffrey Shulman. Twenty-First Century Books, 38 South Market Street, Frederick Maryland 21701. 48 pages. Hardcover, \$12.95, for each book in the series.

This book series is based on the characters of the educational program, "The Kids on the Block," which introduces young audiences to a wide spectrum of individual differences and social concerns.

Scheduled for publication in November 1988 are the following four books: *Business is Looking Up*, featuring Renaldo Rodriguez; *Secrets Aren't (Always) for Keeps*, featuring Jennifer Hauser; *It's Your Turn at Bat*, featuring Mark Riley; and *Friends for Life*, featuring Amy Wilson.

Community-Based Curriculum: Instructional Strategies for Students with Severe Handicaps. Mary A. Falvey, Ph.D. Paul H. Brooks Publishing Company, P.O. Box 10624, Baltimore, Maryland 21285. 256 pages. Softcover, \$19.95.

Outlines the issues to be dealt with in designing and implementing community-based instruction for students with severe disabilities, suggests preferred educational practices for teaching functional and age-appropriate skills in integrated settings, and offers recommendations for developing curricula individualized to match particular student needs.

The Neurologically-Impaired Child: Doman-Delacato Techniques Reappraised. Robert A. Cummins. Routledge, Chapman & Hall (formerly Methuen), 29 West 35th Street, New York, New York 10001. 427 pages. Hardcover, \$55.

For about the last 25 years, a form of therapy known as the "Doman-Delacato Techniques" has been applied to children with disabilities. The therapy originated from the work of Glen Doman and Carl Delacato, who established the Institutes for the Achievement of Human Potential in Philadelphia. This book offers a detailed analysis and critique of the Doman-Delacato approach. The author draws on data from evolution, neuroanatomy and neurophysiology for this analysis.

A History of Mental Retardation. Two volumes. R.C. Scheerenberger, Ph.D. Paul H. Brooks Publishing Company, P.O. Box 10624, Baltimore, Maryland 21285. Stock #273 (pre-historic times through 1959), 334 pages, hardcover, \$27.95. Stock #80X (A Quarter Century of Promise, 1960-1984), 336 pages, hardcover, \$29.95. Both volumes, \$50.

These references examine the rolls of medicine, psychology, education, religion, philosophy, and politics, as well as the evolution of community services, special education, and institutional programs.

Handbook of Measurement and Evaluation in Rehabilitation. Second edition. Edited by Brian Bolton, Ph.D. Paul H. Brooks Publishing Company, P.O. Box 10624, Baltimore, Maryland 21285. 370 pages. Hardcover, \$35.95.

The authors have revised and expand-

ed their original work to create a comprehensive resource for client assessment. Focusing on functional assessment instead of simple diagnostic evaluation, this book strives to help professionals to dramatically enhance client counseling efforts and program planning.

Deaf-Blindness

(Continued from page 4.)

ment staff and an interpreter/job coach was facilitated through other local community agencies.

The Helen Keller National Center has been addressing the needs of a population which is perhaps one of the most challenging to vocational rehabilitation. HKNC Director Barrett and his staff believe that early planning, identification and coordination of support services, training of vocational rehabilitation staff and employers in the local community, and matching clients' support needs with local resources *will* lead to employment and integrated living in the home community for people with deaf-blindness. The service models at center headquarters and nationwide are also applicable to other profoundly disabled populations. They are surely valuable to administrators and staff of rehabilitation training centers which are attempting to define or expand their role in providing employment-related services. But the ultimate evaluation of HKNC's highly structured approach to supported employment and living, and to its training and service delivery system, rests with the consumers themselves.

Ms. Hausman is Director of Public Relations, Helen Keller National Center for Deaf-Blind Youths and Adults.



CAP

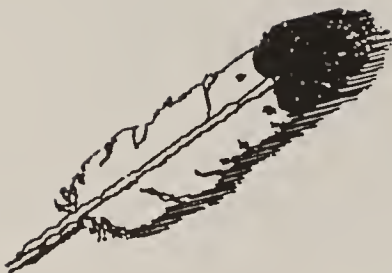
(Continued from page 20.)

rehabilitation case folder. This practice helps guarantee that CAP resources will be available for a quick response to all client inquiries.

There is much more to be learned about information management within this context. People who work in client assistance programs should not hesitate to borrow other techniques and concepts from related fields such as communication theory, information theory, psychology of information, sociotechnical systems, and, most important, other human services delivery systems. Adaptation of such ideas depends in large part upon the information management system extant in the prevailing rehabilitation service sector encountered by the CAP. The management systems should be compatible so that effort is not lost trying to mesh two different kinds of systems. Management system evaluation by the CAP can help conserve human resources so that they are more readily available to work on behalf of the rehabilitation client, the person for whom the system exists.

Mr. Holmes is Rehabilitation Counselor and Ms. Tabor is Director for the Client Assistance Program, Kansas Rehabilitation Services.





Indians

(Continued from page 6.)

Reservation of Northern Montana, the Apache of Whiteriver, Arizona, the Shoshone-Bannock, the Navajo Nation, and the All Indian Pueblo Council of New Mexico.

Staff have also contributed to specific research activities initiated by the Northern Arizona University nationwide counselor survey instrument. Specific R&T research requests have allowed unlimited access to outdated, closed VR files and other records that have been retained in the Flagstaff Office for over 30 years.

Since 1963, intensive Arizona RSA efforts have been directed to VR service delivery to the 13 separate pueblo villages of the Hopi Nation some 140 miles northeast of Flagstaff. Services are currently provided by an American Indian VR counselor on an itinerant basis from Flagstaff. This same counselor also extends VR services to the Paiute Reservation in the "Arizona Strip Country," north of the Grand Canyon and 207 miles from Flagstaff. Similar itinerant services from various VR offices around the state include services to the Papago in Southern Arizona; the San Carlos Apache in East Central Arizona; the Hualapai and Havasupai, both along the rim and within the interior of the Grand Canyon; and the Fort Mohave and Colorado River Reservations along the Colorado River bordering Arizona and California. Similar efforts, but somewhat limited in intensity, have been extended to the various Yavapai-Apache Bands of Central

Arizona and the Salt River Reservation just east of Scottsdale.

Within Arizona RSA, Jim Griffith, Administrator, and his executive staff, including Ed House, Program Manager for Services to the Blind and Visually Impaired, have determined that American Indian VR is one of five major program initiatives for 1987-89. Dr. Eddie Brown, Director of the Department of Economic Security for Arizona (Arizona VR umbrella agency), has been consulted regarding these initiatives and has been especially supportive of improving service delivery to eligible American Indians. A meeting with Dr. Brown at his office on June 3, 1987, which included Mr. Griffith and Dr. Herb Leibowitz from Region IX, reaffirmed Dr. Brown's commitment to this RSA initiative.

On August 25, 1987, Arizona RSA, along with assistance from Dr. Bill Martin of the Northern Arizona University R&T Center, conducted an in-depth planning meeting with Arizona RSA staff from throughout the state representing all levels of interest, (e.g. regional administrators, secretaries, counselors, and supervisors) to plan approved executive staff strategies for American Indian service delivery improvements in 1987-89. This process is ongoing and represents a firm commitment on the part of the Arizona RSA administration. (A copy of the planning document is available to be shared with other states as they facilitate American Indian issues in their state plan process.)

While comprehensive services for independent living efforts in rural Arizona are relatively new, the recently approved Arizona Plan for new Part "B" money includes a specific initiative to expand comprehensive services for independent living to the Navajo Nation. With funding approved, we are providing technical assistance to the Navajo VR program as they begin to implement comprehensive services for independent living.

At a national level, Arizona RSA has

been willing to participate, when requested, in any activity towards improving VR services to disabled American Indians and enhancing the quality of their lives in every area. As mentioned earlier, Arizona staff have participated in technical assistance visits to Northern Montana and, most recently, in a meeting in Riverside, California, with the BIA, RSA, Region IX staff, Indian Health Service, and California VR in an attempt to consider a transitioning school to work concept at the Sherman Indian BIA Boarding School. This meeting demonstrated a cooperative commitment using the VR process as a catalyst in bringing together various American Indian entitlement programs in order to realize constructive service delivery to a very special potential client population.

Arizona can be proud of its past accomplishments in recognizing the special needs of its disabled Native Americans, as well as its commitment to doing even more in the future.

Mr. Powers is Program Manager, District III, Executive Staff Liaison, Arizona Rehabilitation Services Administration, Flagstaff, Arizona.



REPORT RESOURCES

HANDBOOK FOR IN-SERVICE TRAINING IN HUMAN SERVICES. William Crimando and T.F. Riggat. Southern Illinois University Press, P.O. Box 3697, Carbondale, Illinois 62902-3697. 198 pages. \$14.95.

A guide for practitioners, instructors and students in the field of human services. The handbook has 19 chapters divided into 4 parts: analyzing the problems that require training solutions; developing a proposal for solutions to the problems; writing a plan of action for training; and conducting a complete evaluation of the actual problem.

PRODUCTS FOR PEOPLE WITH VISION PROBLEMS. American Foundation for the Blind, 15 West 16th Street, New York, New York 10011. Available free in print or Braille.

This catalog features more than 400 household, business, recreational, and health care products, such as tactile poker chips, an audible carpenter's level, a talking wallet, talking clocks and calculators, Braille versions of popular games such as Scrabble and Monopoly, and many others.

Audio Cassettes of AR

Taped copies of *American Rehabilitation* are available to blind and physically handicapped persons through local regional offices under the National Library Service for the Blind and Physically Handicapped. Contact your public library for the location of the regional library which serves your state.

HANDICAPPED FUNDING DIRECTORY. 1988-1989 edition. Research Grant Guides, Dept. 3A, P.O. Box 4970, Margate, Florida 33063. \$29.50, plus \$3 for handling.

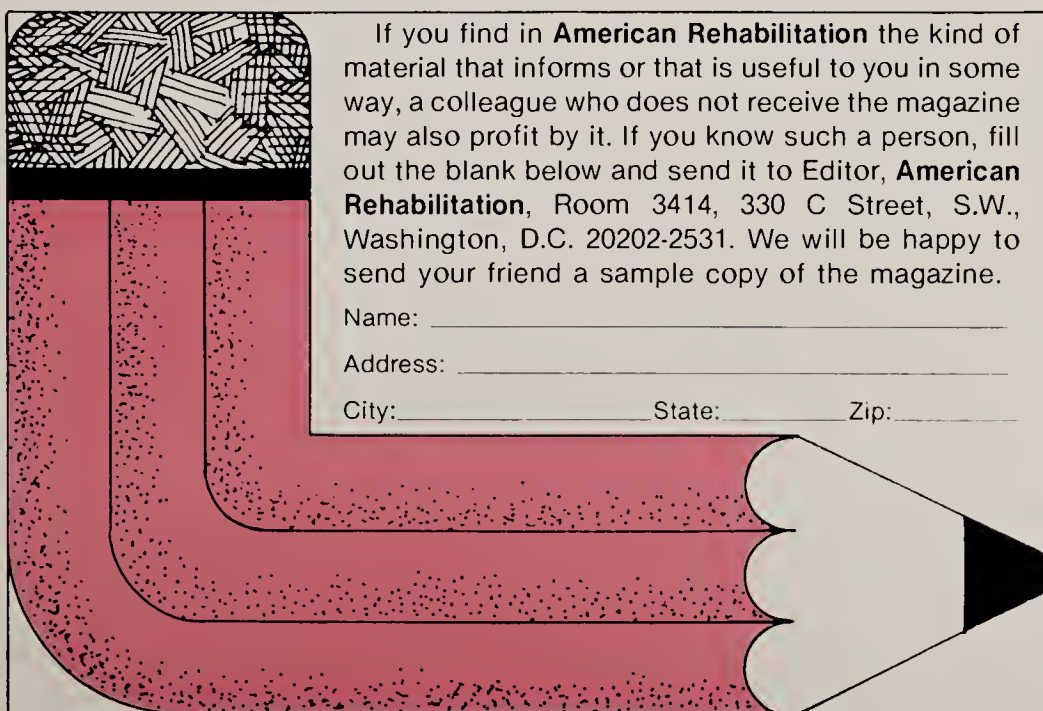
This directory lists 856 funding sources for programs and services for disabled people and provides extensive profiles on foundations, corporations, government agencies, and associations.

HOW TO WRITE VOCATIONAL TRAINING MANUALS. Christopher A. Smith. Materials Development Center, Stout Vocational Rehabilitation Institute, School of Education and Human Services, University of Wisconsin-Stout, Menomonie, Wisconsin 54751. 81 pages. Softcover, \$14.50, postpaid.

This publication provides a process for creating manuals to document training activities for facility programs.

EXPANDING OPTIONS FOR OLDER ADULTS WITH DEVELOPMENTAL DISABILITIES: A PRACTICAL GUIDE TO ACHIEVING COMMUNITY ACCESS and ACTIVITIES HANDBOOK AND INSTRUCTOR'S GUIDE. Marion Stroud, Ph.D., and Evelyn Sutton, M.A. Paul H. Brooks Publishing Company, P.O. Box 10624, Baltimore, Maryland 21285. Text: 200 pages, softcover, \$24. Handbook: 270 pages, softcover, \$29. Price for both, \$48.

These books provide an understanding of the aging process, characteristics of the older disabled population and strategies for successful community involvement. Specific sections are designed to instruct how to: recognize the rights of dependent adults and the services available to them; use constructive nonthreatening techniques for preventing and handling maladaptive behaviors *without depriving adults of their dignity*; access the interests and training needs of adults for smooth transitions into community activities; practice the interdisciplinary approach in developing integrated programs for older adults with developmental disabilities; and know available community options.



If you find in **American Rehabilitation** the kind of material that informs or that is useful to you in some way, a colleague who does not receive the magazine may also profit by it. If you know such a person, fill out the blank below and send it to Editor, **American Rehabilitation**, Room 3414, 330 C Street, S.W., Washington, D.C. 20202-2531. We will be happy to send your friend a sample copy of the magazine.

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AMERICAN REHABILITATION

Choices in Rehabilitation
Integrated Employment
Litigation Avoidance
Native Americans
Computer Access



Choices in Rehabilitation

Nell C. Carney, Commissioner
Rehabilitation Services Administration

It is highly likely that the most important feature of rehabilitation in America in the 1990's will be choices for people with disabilities. Just three decades ago, people with disabilities who applied for services from state rehabilitation agencies had no input into a written rehabilitation plan, had little or no access to public transportation, had no knowledge of assistive technology, could not access public education programs, and had little hope that legislation to prohibit discrimination on the basis of disability would ever exist.

Pause for a brief moment and focus on how far we have come with disability rights.

- In the 1960's we fought for access to transportation.
- In the 1970's we insisted on access to education and training.
- In the 1980's we demanded entry to the workplace.

In the 1990's, Americans with disabilities will have the same choices as all Americans — choices in training, choices in employment, choices in politics, choices in recreation, and choices in full participation. We will have these choices because the Americans with Disabilities Act will be the law of the land and because our American society has finally recognized our full rights.

For the last three decades, we have witnessed and participated in an evolution in the field of disability rights. Americans with disabilities have moved from second class to first class citizenship with the same rights and responsibilities as all Americans. We now hold public office, participate fully in the professions, influence political outcomes, provide leader-



ship, and are empowered to control our own destiny — make choices.

The changes which have taken place in the field of disability have had a tremendous positive impact on rehabilitation services. The training programs for rehabilitation professionals have refocused curriculum content in response to the changing needs of people with disabilities. The scope of services in state rehabilitation agencies and public and private facilities has been expanded to meet the challenges of providing services to persons in *all* disability categories. Congress and state legislatures as well as private sources have responded to the challenge of choices for disabled Americans by providing the necessary financial resources to support rehabilitation services on an individual basis.

As we enter the 1990's, the national

rehabilitation network offers a full range of services, including independent living, prevocational training, supported employment, transitional employment, competitive placement, postemployment, and support and services to family members of the disabled person. These wide-ranging rehabilitation services are offered as choices to people with disabilities.

Choices in rehabilitation means that regardless of the disability, whether developmental or acquired, the disabled individual seeking services has the final say about the nature and scope of services and the outcome of the rehabilitation program. Whether an individual chooses to engage in long-term sheltered workshop employment or to run for public office is the right of that individual.

Choices in rehabilitation will become commonplace in the 1990's for those individuals once believed to be "too severely handicapped" to benefit from rehabilitation services. As we forge boldly ahead in technology, in research, in creativity, and with commitment, we will find a way to close the gap between services, needs and resources to insure that the right choice is not denied to any American with a disability.

Choices in rehabilitation are an integral element in the integration, the right to access and opportunities, and the empowerment of Americans with disabilities. If we are not successful in providing individualized options for the people we serve, who will? We can do it. We *must* do it.

AMERICAN REHABILITATION

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Computer Access and Visual Disability: Remaining Barriers

Jeffrey J. Moyer, M.S.

The microcomputer and computer access revolutions have opened new opportunities for people who are blind or visually impaired to enter the labor market with independent, immediate access to information required on the job. However, the multiplicity of services needed to apply the potential of the technology have not been comprehensively developed. This paper reviews the nature of computer access for people with visual disabilities and the services needed to insure its effective application.



During the past 10 years, new methods for information access have developed for people disabled by vision loss. With the advent of microcomputers made usable through synthetic speech, electronic braille and character-enlarging systems, people with visual disabilities are freed from the major information access handicap their loss imposes. This access has become increasingly important as "the information age" has unfolded. While statistics vary, it is widely agreed that information workers currently comprise the single largest and fastest growing sector (between 45 and 55 percent) of the American workforce (Cotes 1985).

Computer access systems have become more important as more categories of

Mr. Moyer is Director of Rehabilitative and Educational Services for the Cleveland Sight Center. He has spearheaded the development of the STORER Computer Access Center, a comprehensive program providing access services to consumers and providers from across the United States. His experience includes development and management of various rehabilitation and technology evaluation programs. His combined background in rehabilitation administration and access technology makes him uniquely qualified to write about this timely and critical topic.

employment come to depend on computers for the manipulation, storage and exchange of data in the workplace. Yet, people with visual disabilities are not obtaining access to information handling jobs that available technology might enable. This phenomenon is particularly disturbing when set against the backdrop of chronic unemployment and underemployment experienced by people with visual disabilities. It is estimated that a rate of between 65 and 70 percent chronic unemployment exists among people of working age who are severely visually disabled (Kirchner and Peterson 1978). The mass introduction of computers into the workplace provides a potential boon to well-prepared job seekers. But, as the workworld changes, job retention has also frequently become linked to the individual's ability to adapt to the computer as a principal tool used on the job. At the STORER Computer Access Center, a leading evaluation, training and engineering support center for computer access for people with visual disabilities, most clients require services to assist them in maintaining their employment through computer access.

The solution to the "macro" problem is not principally technological; computer access technology by itself is usually not enough. A range of services are required for most people to successfully become access technology/computer users. There is a continuum of services required for successful integration of access technology in the workplace.

These services include the job evaluation process, the evaluation and access technology selection processes, training, engineering services interfacing the device into the computer environment, and ongoing support to maintain the access system.

Evaluation

The evaluation process is accomplished through a detailed analysis of the requirements of the job setting and with the

client's involvement. If the placement has been identified, an assistive device specialist, rehabilitation engineer or applications technician should review the technical nature of the computer environment and develop the parameters for the system to successfully interface into the employment site. This analysis may suggest systems that will or will not work based on these technical specifications. The end user should undergo a thorough assessment concerning such skills as keyboarding, spelling, abstract reasoning, problem solving, memorizing, and ability to work alone. This process can be enlightening for the naive person who does not understand the nature of work involving computers; also it can be fruitful for the counselor seeking some objective measures of the client's likelihood of success. A program of remediation can

With the advent of microcomputers made usable through synthetic speech, electronic braille and character-enlarging systems, people with visual disabilities are freed from the major information access handicap their loss imposes.

follow to address deficit areas. When job retention is the goal, the responsibility of the computer access center is naturally to provide services to help the client maintain employment. In such cases, the evaluation phase will focus on the optimum access system for the client's application. Selection of the optimum modality for the client (i.e., braille output vs. synthetic speech output or enlarged character display vs. speech output) should be based on speed and ease of use, accuracy, hearing as a factor with various grades of synthetic speech, and, most importantly, individual preference. People with partial sight require assessment for response to varying contrasts, image quality size requirements, and fatigue as a factor in use of low vision.

The person with low vision should first

be evaluated for "low tech" solutions which involve optical systems or filtering of the video display image. However, handheld magnifiers are never recommended due to the necessity for "hands free viewing" as well as the potential problems which may arise from prolonged viewing of the computer screen at close viewing distances. If focusing telescopic lenses will enable the candidate to view the computer screen successfully and efficiently, then an optimum, flexible and multipurpose solution has been found without having to interact with the electronics of the job station. A magnifying screen placed on or in front of the computer monitor may be all the magnification required for some low vision computer users. Perhaps an enlarged monitor will be required to provide adequate magnification for the potential user to

view the screen comfortably. If so, there will be no loss of any aspect of normal system use. However, even such a seemingly simple solution as attaching a larger monitor may be a complex and vexing technical matter requiring the involvement of a skilled technician. If a person is photophobic (light sensitive), light filtering lenses, such as Corning CPF or Younger PLS filters, which block the ultra violet and visible blue portion of the light spectrum may be very useful. Such specialized light filtering lenses will naturally provide enhanced visual efficiency and visual comfort for noncomputer related tasks. More simple terminal filtering systems, such as theatrical "gels" of various colors placed over the computer monitor, may also provide helpful reduction of glare or enhancement of the

visual image. The general lighting of the worksite should be studied to ensure optimum lighting of all visual tasks specific

become dated very quickly. There are a few comprehensive computer access centers which offer orientation to the

provides the user with a permanent hard copy of data which can be converted into Grade II or contracted braille, the braille format used for normal reading. Software translation programs or custom hardware peripherals provide this conversion.

As stated earlier, neither braille nor speech systems for IBM compatible computers can presently access graphics material. *Synthetic speech* is provided through a screen review program which, comparable to refreshable braille displays, enables the listener to use speech synthesizers to access electronic data. These programs give the user the same flexibility the sighted user automatically applies to skim, stop, re-read, check spelling, and quickly scan columns or other formatted screens.

The quality of synthetic speech itself should not be confused with its usefulness. Naturalness and intelligibility are distinct characteristics and people with normal hearing can quickly become acclimated to less natural sounding, and less expensive, speech synthesizers.

Factors which may be useful when assessing seemingly comparable devices are:

- the number of keystrokes required to accomplish the same task;
- the company's ability to provide adequate training materials;
- support after purchase; and
- service which will affect the true viability and cost of the product over time.

If a decision is being made without serious consideration of the alternatives in a computer access center, an exploration process using national resources should be undertaken. Examples include the National Technology Center of the American Foundation for the Blind, which provides a human data base of users through the Careers and Technology Information Bank and the Job Accommodations Network (JAN) of the President's Committee on Employment of

It is estimated that a rate of between 65 and 70 percent chronic unemployment exists among people of working age who are severely visually disabled.

to the nature of the visual functioning of the client.

With some people, combined systems which offer speech and enlarged characters or electronic braille with synthetic speech might be selected. Such dual modality output provides speech review for reading quickly through long passages, while also providing braille or enlarged character output for the careful review of data.

Following the critical assessment phase of the evaluation process, important data will have been gained.

Selection

A critical stage of the access technology cycle is the review and selection of available alternatives. In the general computer market, showrooms abound in which the shopper can compare systems and make choices with the support of a variety of publications devoted to system analysis and comparison. But choices made among computer access alternatives are more complex than those concerning standard computer systems. The field has many options, ranging from complete computer systems and peripheral devices, such as a braille embosser, to integrated hardware systems and software. The selection process is complicated by the needs of the user, the preferred mode of access and the compatibility of the systems; hence, the need for a technical specialist's involvement.

The rehabilitation and computer access fields are sadly lacking in resources for this critical step. Published evaluations of similar devices are available, but these

alternatives for computer access, and there are vast regions of the country beyond the service range of such resource centers. Further, no center can afford to have "one of everything," or can maintain staff skill levels concerning all devices in the face of rapid technological change. Review of the many alternatives for computer access may be made simpler by considering some broad categories of types of systems.

Enlarged characters can be achieved through optical systems such as head-borne telescopic lenses, full-screen magnifying lenses (capable of roughly two power magnification), software, integrated hardware, and custom computer systems/terminals.

There is only one electronic magnification system, VISTA from Telesensory Systems, Inc., which provides access to graphics for IBM compatible computers, increasingly important for many computer applications. Braille and speech systems cannot access graphics; however, this type of access is improving and currently some systems can access graphic character sets used to highlight or enhance screen displays.

Electronic braille provides two major categories of options for the braille user. Electromechanical braille displays offer refreshable viewing "windows" which present 20 or more cells of electromechanical braille characters. One can navigate around the computer screen reading with this transient, character-for-character braille display. The alternative is to print the data on screen or in file via a braille embossing printer. This method

People with Disabilities, both of which are resources for consumers, employers and rehabilitation professionals providing optimum methods of modifying worksites.

Training is a necessary requirement for most employment-related computer applications. The training process is usually not a single system matter. For example, if a person is being prepared to work in a job which requires use of an IBM 3278 terminal workstation, the employee would probably require training on an IBM personal computer or compatible, the selected access system, a 3278 terminal emulator, and whatever software is being used for the application performed by the employee. Thus, the person would need to learn a variety of levels of system operation in order to perform job functions successfully.

Training centers staffed by competent, appropriately trained people are woefully few, but, hopefully, programs developed under the Technology Related Assistance for Individuals with Disabilities Act will alleviate this shortage. Even the best training, however, should be viewed as an orientation which leads the student into a longer path of self-study and system mastery. Therefore, the training cycle should be seen as a time for thorough notetaking, learning to use the reference material provided by the various manufacturers, and gaining the confidence necessary to "jump right in" as a user of what might otherwise be seen as an intimidating and overwhelming system. The comprehensive integration of the multi-leveled computer system is accomplished after considerable practice and by learning through doing.

Engineering and Support Services

As mentioned above, the technical aspects of successfully integrating custom workstations into computer environments requires a high degree of expertise, with the involvement of an assistive device specialist or skilled technician. Such ser-

vices may be available from the manufacturer or developer of the custom system, from a rehabilitation engineer employed by a state department of rehabilitation, from a private contractor, or through a private agency offering computer access services. The earlier in the process that the "access manager" (i.e., rehabilitation counselor, college placement officer, job-site supervisor) brings the client onto the team, the better. One primary service, as mentioned earlier, is the analysis of the new or redefined computer operator position of the candidate who is visually disabled. This process requires a review of the computer environment. Technical factors, including historical precedents, the nature of the computer environment itself, the degree of onsite technical support, the type of access possible, and even funding and administrative hurdles must be considered prior to device selection and interface planning.

The mass introduction of computers into the workplace provides a potential boon to well-prepared job seekers.

At this time, appropriate questions include: Has this type of interface been done before? Is there documentation available from the access manufacturer or other source? If so, has anything changed within the computer environment since the previous interface? For example, have there been internal programming or hardware updates which would change the nature of the technical requirements?

The nature of the computer environment must be considered by deciding which alternative would make the most economical, technical and functional sense. Will a dedicated line to the computer be used or access through a modem be more practical? Will the employee interconnect to a mainframe system or local area network, or will a

stand-alone system be used? Can any changes be foreseen in the computer environment?

Varying work environments have differing levels of onsite technical support. A technical expert for the worksite's computer system should be identified. This technical liaison will be the primary link with the assistive device specialist in assessing and developing the actual device interface. Onsite installation support may well be required to establish "online" operation. In addition, ongoing support should be planned for troubleshooting problems that might arise and informing the access manager about changes in the computer system that might impact the custom workstation user.

Part of the realities of computer access are also the inevitable limitations of most funding sources. Selected access systems, peripherals or off-the-shelf computers can vary widely in cost, and third-party payers

understandably must be convinced about the cost effectiveness of the system selected.

Occasionally, the computer access user who relies on his or her system for job performance is faced by the dilemma of "down time," when the access system is being repaired or serviced. Rental of comparable systems is typically not an option, although a few manufacturers do provide a rental service during repairs. However, there is a great need for such services and very few private and public programs rent equipment for short-term use. The STORER Center operates a rental program for over 50 devices, a critical and important service for clients who need devices until new or repaired systems can be delivered.

Print Access. A few noncomputer access considerations may likewise be ger-

mane to many computer environments. In almost every situation, the employee will require access to at least some printed materials. This may be accomplished through the use of readers, an Optacon, a closed-circuit television reading system,

The best training should be viewed as an orientation which leads the student into a longer path of self-study and system mastery.

optical aids, or an electronic optical character recognition system (provided the needed material is "machine readable"). The more integrated the systems can be, the more functional (i.e., reading camera and computer screen sharing one display or optical character recognition system interfaced to the computer). Certainly, the work area should be well-organized so the employee may comfortably access the keyboard, reading system, telephone, or other required tools. Basic requirements also dictate that the heights of chairs and tables be considered for ease of keyboard access and optimum viewing of monitors and print data.

Funding

Due to space constraints, the complex matter of funding will not be covered herein; however, for a variety of creative funding alternatives, the reader is directed to the following publications: *Financing Adaptive Technology: A Guide to Resources and Strategies for Blind and Visually Impaired Users*, written by Steven Mendelsohn and published by Smiling Interface, New York, New York; and *Assistive Financing for Assistive Devices: Loan Guarantees for Purchase of Products by Persons with Disabilities, Revolving Loan Funds: Expanding Equipment Credit Financing Opportunities for Persons with Disabilities*, written by Kenneth G. Reeb, and other finance related publications of the Elec-

tronic Industries Foundation, Washington, D.C.

Cost in and of itself is not a single dimensional factor. Rather, cost should be considered as one of a matrix of interrelated factors. Some seemingly low

cost solutions require scrutiny to assess the true cost benefit. That is, operations which may be possible with a "low end" solution may be cumbersome or hard to memorize due to their complexity and, therefore, may present factors of inefficiency for the user. Other systems within the same cost category, on the other hand, are quite "elegant," and present no such problems.

Challenges

There is no question that, while the demand for computer access services of the type described herein is growing, the field of rehabilitation has not kept pace with the changes the computer revolution has wrought upon the workplace.

Vocational counselors, placement specialists and career guidance personnel must acquire a working knowledge of the capabilities of this evolving technology and resultant new career paths.

The future presents even greater challenges. While Section 508 of the Rehabilitation Act legislates access to office equipment purchased by the Federal Government, the largest customer for computer systems, there are still unsolved technical hurdles to converting graphics and bit mapped screens into accessible modalities other than enlarged characters. Rehabilitation professionals

often fear computers, due, perhaps, to their own lack of understanding. The funding levels under the new Technology Related Assistance for Individuals with Disabilities Act do not seem adequate to fully address the tremendous need, particularly for low incidence groups such as people with visual disabilities. A momentous challenge presents itself if the promise of access technology is to be realized. Private and public agencies must commit their resources to the establishment of new programs offering the type of services demanded by the evolution of "the information age." Administrators and special education teachers must demand that their programs enable visually disabled students to keep pace with their sighted classmates concerning the use of computers in education and through enhanced career exploration efforts. Vocational counselors, placement specialists and career guidance personnel must acquire a working knowledge of the capabilities of this evolving technology and resultant new career paths. Program managers must envision new professional teams with members drawn from the technical community. While many of us chose careers in human services because we wanted to work with people and did

not feel comfortable with technological matters, our entire society is being thrust into a new "mode," to borrow a term from "computereze." Professional training programs which prepare specialists for work in this field and which maintain their skills through inservice training must incorporate serious course work concerning computer access. All professionals
(Continued on page 15.)

Disability and its Prevention in Indian Populations:

is it someone else's responsibility?

Jamil I. Toubbeh, Ph.D.

Despite a well coordinated and eminently successful federal, state and Indian tribal effort aimed at combating health problems in American Indians and Native Alaskans (Indians), prevention and amelioration of disabilities in these populations continue to pose questions regarding provider responsibility and service coordination. Obscure jurisdictional boundaries and absence of service coordination among responsible agencies constitute one of the major factors impeding the development of viable habilitation and rehabilitation programs in the majority of reservation and urban Indian communities. In the light of the high prevalence of chronic illness and disability in these populations, it may be assumed that the disabled Indian today is not receiving an equitable share of the benefits that are available to disabled citizens.

Among federal agencies, the Indian Health Service (IHS) plays a central role in meeting the health needs of Indians. The agency's role in disability (or its correlate, chronic illness), however, has been at issue for at least a decade. Although its legislative mandate addresses comprehensive health and rehabilitation needs of Indians, its role in these areas has been blurred not only by a public health delivery model, but by new laws affecting disabled U.S. citizens and by responsibilities ascribed to other federal agencies under these laws. Considering the high

costs associated with treatment of chronically ill and disabled people and the number of agencies that are either directly or indirectly involved in the provision of services to these populations, questions arise as to whose responsibility is the disabled Indian.

This article will examine issues associated with disability and its prevention in Indian populations (see Note). The assumption is made that, since IHS has the primary responsibility for ensuring the availability of comprehensive health services to Indians, it is the agency most likely to ensure the provision of comprehensive care for disabled Indians, as well as the one most able to play a major role in the prevention of disability in these populations. This responsibility resides in the agency's mission, its operational objectives and in its historic and legal relationship with Indians.

Disability and its Prevention

The subject of Indian health care and the controversies surrounding it are well documented in a recent Congressional report titled, *Indian Health Care*.¹ While the intent of this paper is neither to trace

the history of Indian health care nor to assess its relative impact on the overall health of Indians, acquaintance with this report may be useful in understanding the crucial role that IHS plays in the broad area of health care in Indian populations, particularly in disability and its prevention.

Among the three operational objectives of IHS are two which have a direct impact on disability and its prevention in Indian populations. These are:

- to deliver the highest quality of comprehensive health care to Indian people; and
- to act as the Indians' federal advocate in health matters.

In implementing these objectives, IHS avails Indians of hospital and ambulatory medical services; preventive and rehabilitative services; and community and environmental health programs. In their implementation, furthermore, the agency assumes the role of primary federal advocate for all Indian health and health-related needs.²

Historically, IHS strategies evolved from public health models extant when IHS was established. Activities under this model were directed toward prevention of illness, chiefly through sanitation and control of contagious diseases and environmental hazards. With changing patterns of disease, resulting from either further exposure of Indians to the Anglo-

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American culture or the changing Indian lifestyles, IHS modified its health delivery model, incorporating new elements in response to dynamic Indian population needs. The focus on alcoholism, otitis media and diabetes are recent IHS foci reflecting the agency's response to these needs. Notwithstanding, elements of the original model have persisted. Despite an overall shift in the philosophy of public health in America, IHS philosophy continued to reflect perceptions of illness that are inconsistent with those of other public health agencies. This is particularly evident in the agency's manpower mix where the focus clearly reflects overemphasis on health manpower in service provision and in the management of IHS programs.

Prior to the establishment of IHS, U.S. public health agencies were increasingly focusing their attention on the health problems of individuals and society, directing much of their efforts toward breaking the barriers between prevention and treatment, and personal and community health. The greatest strides were made in the area of prevention. Operationally, prevention became a process that incorporated both the classical definition of prevention of disease onset with a new concept, that which emphasized prevention of the adverse sequelae of disease. This concept effected a broadening of public health programs to include services for the prevention, diagnosis and treatment of communicable diseases; protection of the health of mothers, infants and children of school age; prevention, detection and amelioration of dental, visual, hearing, and other problems; promotion of mental health; and, most importantly, control of chronic disease through more appropriate treatment strategies.

Even though the IHS mission and objectives address elements of the revised U.S. public health model, there is little evidence to date to indicate that these elements permeate the IHS delivery

system or its administrative structure. A case in point is the role of the agency in serving disabled Indians. Despite progressive legislation affecting these populations dating to the 1950's, and despite an unprecedented increase in the number of Indians with these conditions over the past two decades, IHS today has neither a specific focus on these conditions, nor a database allowing it to meet the challenges presented by them.

It may be argued that the responsibility for the care of the disabled Indian is not that of IHS. Certainly, based on current allocation of funds for disability among federal agencies, IHS can claim the role of a David, managing only a fraction of these allocations, often through a complex, tedious and costly process of reimbursement for services it either renders or contracts out with private practitioners. It may also be argued that since the agency's services are residual to other sources, and since Indians are citizens of the U.S. and, therefore, eligible for services pro-

vided to other U.S. citizens, the agency's responsibility toward the disabled Indian is limited by law and policy. Both arguments are valid; and both have been advanced by IHS. Responsibility, however, transcends issues of Indian health needs, health conditions and their actual or potential costs. It is derived from IHS's unique attributes.

Responsibility is inherent in the role of IHS in the overall health of Indians, the perception of that role by tribal and community entities, and the agency's proclaimed mission, goals and operational objectives. Outside the Bureau of Indian Affairs, no other federal agency has either the experience of IHS in Indian communities or has as close a rapport. In matters of Indian health, IHS is paramount. It is the only agency to whom Indians can

turn. It is the Indians' health delivery system by Congressional mandate, notwithstanding responsibilities of other agencies, or policies created for or by IHS. Considering the limits of IHS's human and pecuniary resources, however, the question arises as to whether or not the agency can assume such a broad responsibility in the health of Indians. The answer is: it cannot.

IHS: State of the Art in Disability and its Prevention

Programs for disabled citizens permeate the federal bureaucracy. They reside in the various federal and independent agencies of the executive branch and constitute a complex network of organizations that administers more than \$60 billion annually in behalf of disabled citizens.³ Regardless of the uniqueness of its role in Indian health, or the perception of that role by Indians, IHS cannot assume responsibilities that transcend its own mandate. The area of prevention, however, is an exception. It is one that is historically linked to the IHS role in the overall health of Indians. The agency

Outside the Bureau of Indian Affairs, no other federal agency has either the experience of IHS in Indian communities or has as close a rapport.

already has the mechanisms in place to carry out prevention responsibilities. With minimal support from other sources, it has the capacity to expand its current foci to embrace the needs of chronically ill and disabled Indians. This expansion would be consonant with its dual role as federal advocate and provider of comprehensive health services to Indian populations.

The responsibility for prevention and alleviation of chronic illness and disability in IHS today is a function of local facility administrators. Because this responsibility is not based on an IHS servicewide policy, its assumption by these administrators is subject to local policies. As a rule, disabling conditions are considered high

cost, non-emergent, and low priority conditions, subject to budgetary thresholds and to IHS servicewide management philosophy, constraints which limit not only the range of services rendered, but the number of people served by local facilities. Across IHS areas, prevention activities targeted at disability are limited and disparate.

While there is little disagreement within IHS today over the need for an articulated policy that would address the needs of disabled Indians, there is disagreement over the nature and extent of IHS involvement in disability and over the potential adverse effect that such involvement would have on IHS extant operations. The issues of concern, however, are overwhelmingly administrative and do not take into consideration changing health needs of Indian populations, particularly those related to disability.

The health of Indians today is a minor reflection of what it was three decades ago when IHS was established.^{1,4,8} Life expectancy has been extended, infant mortality has been reduced and many infectious diseases that once plagued these populations are under control. Today's needs are different. The price paid for acculturation and improved health care has been an increase in the prevalence of disability. Changes in diet, for example, have increased the susceptibility of Indians to diabetes, which, in turn, has effected increases in end-stage renal disease, retinopathy and loss of limb. Decreases in mortality at either end of the age spectrum have increased the prevalence of mental retardation, epilepsy, congenital abnormalities, stroke, heart disease, and cancer. In addition, Indian accessibility to alcohol has led to increases in fetal alcohol syndrome and its related problems. These examples represent the tip of a larger iceberg of problems that have not been addressed by IHS, and ones that, nonetheless, are now being felt by Indian leadership and service providers.

The absence of a large scale epidemiologic studies on disability in Indian populations is an indication that IHS has not, to date, considered its priorities in the light of the increasing prevalence and incidence of these conditions in these



populations. An analysis of the agency's priorities indicates continued emphases on primary medical care, generally described as health maintenance and promotion activities. Although the agency employs a limited range of support staff, including social workers, nutritionists, audiologists, and health educators, staff activities are confined to health treatment and continuity of health care plans. The absence of a priority on disability has inhibited the development of essential activities to meet current needs. Its absence, moreover, has negated the evolution of prevention schemes at any stage — primary, secondary or tertiary (see Note). It is in this specific area that change is needed and where change can directly affect the benefits that Indians receive from the immense pecuniary resources allocated by Congress for disability.

A Strategy for Change

Stemming disability requires a comprehensive and an interdisciplinary approach that would involve all administrative components of IHS as well as other agencies of the Federal Government with responsibility in disability. IHS,

as primary advocate, would assume a lead role in defining its responsibility first. It would then elicit, from each agency, specific responsibilities that would support its role in meeting the needs of disabled Indians. The outcome of this approach is defined in terms of a shared responsibility that, in the long run, would ensure provision of comprehensive and continuous services to Indians through gradual elimination of jurisdictional barriers. Action taken by IHS can ensure the success of this effort. Six action steps are proposed:

1. Establish an Interagency Task Force (ITF) on chronic illness and disability in Indian populations to address trends and issues affecting these populations.

2. Establish a clear policy to address the broad needs of chronically ill and disabled

Indians, consistent with the agency's mandate, mission and operational objectives as well as with those of other federal agencies having jurisdiction over chronically ill and disabled citizens.

3. Establish within IHS program management structure an Office on Chronic Illness and Disability (OCID) with responsibilities that would cut across IHS programs that either serve or have a potential to serve chronically ill and disabled Indians.

4. Establish an areawide information system on chronic illness and disability in Indian populations to serve Indian tribes and communities, IHS Area offices, federal and state agencies, the private sector, and the range of planners, practitioners, researchers, and others who serve these populations.

5. Develop a plan to delineate agency responsibilities in chronic illness and disability and their prevention. This plan should include identification of IHS program components that might contribute to the implementation of the plan.

6. Establish a liaison and initiate dialogue with the Chair of the National Council on Disability on policy issues to

address the needs of chronically ill and disabled populations. This dialogue should focus specifically on the mandate of the council and the manner in which such a mandate can effect improved (or expanded) services for Indians within the context of the Indian-Federal relationship.

Regardless of the uniqueness of its role in Indian health, or the perception of that role by Indians, IHS cannot assume responsibilities that transcend its own mandate.

The proposed steps are interrelated. A timetable for their implementation, however, will depend largely on the priorities that the IHS places on each, the time required to assemble a cadre of specialists to tackle each step and the availability of human and pecuniary resources to support their implementation. It may be assumed, based on recent Congressional actions, President Bush's address to Congress,⁹ and federal and state agencies' interest in issues related to disability in Indian populations, that, once IHS shows intent through appropriate internal agency action, other agencies would cooperate and contribute to the IHS effort.

The proposed action steps are complex, requiring policy decisions at the highest level of IHS, internal agency programmatic review and interagency cooperation. When examined from the narrow perspective of disability and its prevention, however, their implementation should not present problems considered unmanageable by IHS. Following is a description of the range of tasks and topics that might be considered under each step.

1. Guided by the Director of the IHS, a select, interdisciplinary group composed of IHS staff would be convened to define the parameters of responsibility of the Interagency Task Force within the context of disability and its prevention;

identify federal agencies that have the highest contributory potential to the IHS effort on behalf of disabled people; select appropriate agency and tribal representatives for the ITF; outline responsibilities of the ITF; and establish a schedule for ITF meetings.

The range of issues to be considered by the ITF could include the mandates of agencies regarding disabled people, with emphasis on Indians; the available resources to carry out the mandates; jurisdictional responsibilities of agencies; and feasible areas of cooperation with the IHS at national, state and tribal levels.

While the ITF initial focus would be on defining responsibilities among federal agencies, in the long run it could provide a forum for discussion of a range of topics, guide the IHS in the initial phases of plan implementation, and provide other agencies with information about disability in Indian populations.

The agency already has the mechanism in place to carry out prevention responsibilities.

The ITF would be chaired by either the Director of IHS or someone appointed by him.

2. The IHS role as federal advocate for and provider of comprehensive health and rehabilitation services to Indians would be delineated within the constraints of the agency's mandates. Based on this delineation, the IHS Director would issue a policy statement regarding this role. Its purpose would be to guide other agencies in their respective role as provider of services to disabled Indians; ensure con-

sistency in the provision of services to chronically ill and disabled Indians at IHS area and facility levels; and guide tribes and Indian communities in their effort to plan effective local programs for disabled members.

3. As the IHS presently has no clear focus on disability, the establishment of a freestanding Office on Chronic Illness and Disability would give focus to these activities. It could also be a seat for agency, interagency and tribal activities in this regard, providing guidance and information on a range of topics and acting as a policymaking and coordinative body.

The OCID would be staffed by experts representative of those activities in which the IHS will be involved. Selection of the team would be based on IHS guiding policy in prevention of and in disability. The structure and composition of the OCID could also comprise the model upon which IHS area offices would structure and staff their respective chronic illness and disability programs.

4. Current databases on chronic illness and disability in IHS area offices are severely limited in scope and purpose. As a major provider of comprehensive services to Indian populations, IHS is in the unique position to track health conditions

in Indian populations, to compile state-of-the-art information and to focus attention on the provision of medical, habilitative and rehabilitative services.

5. The purpose of this action is to create a coordinative role for the Office on Chronic Illness and Disability. Through examination of program components of the IHS at the headquarters and area levels, administrators can assess and redirect contributions of each group to the goals, financial structure and creative force behind the OCID.


Activities under this step would be guided by the IHS Director or his designate, in coordination with the associate directors of the Offices of Health Programs; Planning, Evaluation and Legislation; Health Program Development; Tribal Activities; and Environmental Health and Engineering.

6. The establishment of liaison and dialogue with the National Council on Disability is based on the mandate of the council and its recent focus on Indian disability issues. The council is the only federal agency with responsibility to address, analyze and make recommendations to the President and Congress on issues of public policy which affect people with disabilities. Hence, it is important for IHS to keep the council apprised of the needs of the chronically ill and disabled Indian.

The representative selected for the position of liaison should have access to the IHS Director or his designate, understand disability, have knowledge about habilitation and rehabilitation, and be experienced in federal and state programs that serve disabled citizens.

Conclusion

Policy coordination at federal and state levels creates jurisdictional barriers that impede service delivery to Indian citizens. Although these policies have not adversely affected the provision of medical care, their impact on services to the disabled Indian has been significant. As a federal advocate, IHS has the responsibility to ensure that this underserved population receives its share of this resource. The proposed IHS involvement is in disability and its prevention. To carry out its responsibility, six steps are recommended and discussed. In summary, these are: the establishment of an interagency task force on disability; an Office on Chronic Illness and Disability; an IHS-wide policy on disability; an areawide database and information system on disability; a liaison with the National Council on Disability;

and the development of an agency management plan to ensure that the prevention initiative is carried out in a coordinated manner within the various components of the agency. 

Opinions expressed in this article are those of the author and do not necessarily reflect the views of the Indian Health Service, the Department of Health and Human Services or the Department of Education.

Note

Within the context of this article, *disability* is defined as either a health condition which imposes limitations on an individual's normal development and activities or one which prevents or limits an individual's ability to lead a productive life; the latter is most often associated with work. *Prevention* is the elimination or reduction of those factors which either result in or contribute to disability. It is intervention *before* disability occurs, as well as intervention *in* disability to ensure against further complications. Prevention may be primary, secondary or tertiary.

Primary prevention is the elimination of those factors that lead to disability. The process, however, is complex, since societies, and particularly individuals within those societies, vary in their susceptibilities to disabling conditions as a function of their unique behaviors, technologies and other attributes. The term *primary* implies the potential of development of disability, hence its strategy is based in affecting (specifically, reducing) the prevalence and incidence of the condition through indirect means. Public education and sanitation are examples of primary prevention.

Secondary prevention is the early detection and treatment of a potentially disabling condition before permanent disability occurs. The term implies a high

probability that a disabling condition will occur in the absence of specific and direct intervention activities. The primary tool of secondary prevention is screening; its target, individuals (or groups of individuals) at high risk of incurring disability or who exhibit symptoms of physical or mental abnormalities. Examples are periodic screening of Indian infants for otitis media and diabetes, conditions which are known to result in disability and to affect Indians more than other populations.

Tertiary prevention is the reduction of the potential adverse consequences of a disabling condition. The term implies the existence of a disabling condition, knowledge about the effects of that condition and strategies to ameliorate its potential adverse effects.



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- (Continued on page 23.)

Litigation Avoidance Through Conflict Resolution: *issues for state rehabilitation agencies*

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In American society, state vocational rehabilitation (VR) agencies operate within a cultural climate which demands that they be held accountable and responsible for the quality and quantity of services they provide to people with disabilities. In the best of such agencies, conflicts may arise because the client and the agency have different notions about which services are most appropriate to improve the employability and independent living of the client. These disputes can quickly escalate into costly legal contests when the client believes his or her rights to services have been violated or when the agency cannot or will not provide the requested services.

Conflicts may typically arise over client eligibility, timeliness of services, case closures, agency error, and agency policies. If such disputes and conflicts are to be resolved rapidly and fairly, professional agency managers must now consider the advantages of conflict resolution as a way of avoiding litigation. In this article, we discuss the basic issues involved in this management process with the idea in mind that VR agencies need to review their policies, plans, and philosophies of conflict resolution. When conflict resolu-

tion is viewed from the perspective of litigation avoidance, both the agency and the client stand to benefit.

The Advantages of Resolution

In a general sense, a VR agency's ability to resolve conflicts at the lowest possible level reflects the idea that the agency is expected to resolve problems in the same professional manner in which it provides services. That is, the ability to resolve conflict is an expression of the agency's professional responsibility to account for its actions. This does not, of course, imply that an agency is always "wrong" and the client always "right." In fact, the concepts of right and wrong

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may actually distract from conflict resolution because they center upon the idea that someone is to blame. Resolving conflicts is usually less difficult when practical solutions are found that are acceptable to both sides in the dispute. Placing blame interferes with this process.

The advantages of avoiding litigation through conflict resolution include the following:

- *It saves time.* The agency staff and the client will invest less time solving problems and conflicts at the lowest possible level than they would if a particular conflict were resolved through formal litigation.

- *It saves money.* The savings in time translates directly into financial savings. Informal resolutions are almost always less expensive than formal, legal resolutions, which generally require outside assistance or attorneys. Any money saved can be used to serve other clients.

- *It improves the service delivery system.* Resolving conflicts at the local level can actually help strengthen the agency by giving administrators and clinical staff the opportunity to identify weaknesses in service delivery. In this way, conflict resolution becomes an ap-

propriate use or investment of agency resources.

- *It enhances rehabilitation.* Conflict resolution can be a rapid process, one that does not waste the client's time or slow down the rehabilitation process. When the agency moves decisively to solve problems, the counselor-client relationship is supported and the client is not subjected to needless stressors and crises.

- *It clarifies issues.* In the process of defining the issues of a conflict, the agency may help clarify the main points for the staff and client alike. Communication is enhanced when the agency and the client both agree to the nature of the problem or, at least, "agree to disagree."

- *It reflects proactivity.* Solving problems as they occur can illustrate to the client that his or her case is important and that the agency staff is interested in fairness and high quality service. As a proactive stance, low-level resolutions function to keep disputes or conflicts within the service arena, where resources can be made instantly available to the client. Conflicts which are allowed to go unresolved and to escalate into formal disagreements will eventually move out of the service arena and into the legal arena.

These advantages may also be considered as primary characteristics of a professionally oriented VR agency that aims to maximize the product it has to offer clients in need. From the client's perspective, a VR agency which puts these characteristics into action is fulfilling its mission of advocacy for people with disabilities through its concern for problem solving. But if no attempt is made to resolve conflicts at the lowest possible level, the client may have to resort to formal appeals or litigation which may slow the rehabilitation process, at least temporarily.

While staff may consider any agency decision as a routine administrative action, the client may experience the very same decision as a major stressor or even as a life crisis. A well-defined conflict

resolution policy in the agency can help reduce the negative impact such decisions may have on the client's well-being in two important ways. First, the process of defining the basic issues of a client-agency conflict necessarily includes an appraisal of the client's experiential situation or "position." So the agency is then more likely to understand the client's feelings and concerns.

Additionally, the client may receive information that helps him or her to better understand the agency's point of view. For example, if the agency is restricted by law from a particular action, a complete and open explanation of this may encourage the client to accept alternative actions. In other words, the process of defining issues may also help the client understand the agency's limitations. The process then becomes a dialogue in which the agency and the client work jointly toward alternative solutions. The conflict is thus redefined as a problem in common requiring the client's active participation. In this way, the dialogue reduces the probability of adversarial positions that could arise if the client were made to feel like an "outsider." The client thus retains some responsibility to resolve the conflict.

Policies and Leadership for Conflict Resolution

Agency administrators and managers at all levels play a vital role in creating a service environment which favors conflict resolution. It is important that clients and staff are confident that the agency possesses a proactive willingness to resolve disputes as they arise. Management accomplishes this by setting an example through policies and actions which convey the idea that conflict resolution is a priority service within the organization. Clinical staff are much more likely to try to settle disputes early if they know they have management's support. Similarly, clients can be more open about their concerns if they believe the agency will listen to their complaints and will act to resolve

them. Such an environment fosters responsible participation by client and staff.

Administrators and managers can help create this kind of environment in different ways. The following methods are general and can be adapted to any rehabilitation setting:

- *Establish resolution policies.* As a basic agency stance, these policies spell out the ways in which the agency prepares itself to resolve conflict as a client service. Such policies cover medication, negotiation and settlement methods in accordance with existing client rights.

- *Identify decision makers.* At some point, someone in the agency must make a decision to settle a dispute. Once the issues of the conflict are identified and understood, an identified decision maker must be able to evaluate information in light of resolution policies and to make the decision to resolve the conflict in a specific way that is acceptable to the agency and the client. Therefore, the decision maker must also have the authority to ensure that the agency carries out the resolution.

- *Establish policy for information flow.* The way information flows to resolve conflict may differ from the way it normally flows in the agency organization. That is, resolution may require the horizontal flow of information, not just the vertical flow common to many agency structures. Efforts to resolve conflict will be less disruptive to the agency if these horizontal channels are clearly defined. If, for example, the conflict cannot be solved by the counselor and the client, who else in the agency has the authority and responsibility to convey accurate information to a decision maker so that additional attempts at resolution may be made?

- *Define the steps to resolution.* This method involves all the others listed above in that everyone participating in the process must understand the steps necessary for policies to work well and for information to move timely and in the ap-

propriate direction. Normally, this process involves moving the conflict and all its information to another point in the agency when resolution at the first level does not appear successful. For example, if a counselor cannot resolve a dispute by

usually those that require general agency resources for resolution. But once those conflicts are resolved, agency staff will need to know details of how such conflicts were triggered, how to avoid similar situations in the future and how to resolve

of time in which many conflicts may be resolved, the agency can learn to recognize common situations that give rise to conflict and can review its service policies on a regular basis. Conflict itself, then, becomes an important ingredient in the agency's evaluation of its own quality control measures.

Recurring conflicts may point to agency weaknesses or shortcomings, while the absence of conflict may indicate strengths. As a barometer of quality, conflict can help guide the agency toward better service delivery and can help ensure that resources are properly directed to provide needed services.

It is often difficult for an agency to separate systemic conflicts from personal ones. Particular counselors may tend to become involved in certain kinds of conflicts, while clients with particular characteristics may have similar biases. The agency that does not document conflict will have difficulty identifying such patterns.

Because placing blame is not an edifying practice, the agency as a whole has the responsibility to retain a clinical perspective about counselor-client encounters and to recognize that conflicts can occur with any human interaction. But the agency can identify and address training needs of specific counselors just as it can identify and address its own strengths and weaknesses. This practice allows conflict resolution to have a direct impact on conflict reduction through appropriate training.

Clients present another problem. If the agency is able to link the occurrence or type of conflict to specific client characteristics or situations, it again must take the clinical view and find appropriate methods for dealing with such clients. In other words, the agency can remain proactive by tailoring services or encounters with such clients to meet their needs. This approach has the double advantage of allowing the agency to put knowledge thus gained to proper use with the client

Informal resolutions are almost always less expensive than formal, legal resolutions, which generally require outside assistance or attorneys.

working with the client, the counselor must know that he or she must routinely pass along the conflict to his or her immediate supervisor for additional work towards resolution. In this way, the agency avoids needless delays in moving the conflict to a point or level at which resolution can be accomplished. This immediate reaction helps keep the client involved in the process.

- *Identify staff to handle the actual resolution.* Once the conflict is identified, the information gathered and a decision is made to resolve the conflict in a particular way, those involved in the dispute need to know who will explain the provisions of the resolution. This typically involves a meeting with the concerned parties and gives the agency the opportunity to review the problem and its solutions. Such a meeting may be conducted by the decision maker who worked out the provisions or by another designated person. In either instance, the meeting process can clearly define the agency's and the client's actions needed to bring about settlement.

If the above methods are successful in helping the agency avoid litigation, those conflicts which are thus resolved will produce a wealth of information that can be studied and translated into beneficial training objectives for agency staff.

These objectives provide feedback for the service system and are valuable as a way of teaching conflict avoidance and resolution. Because small conflicts can usually be resolved quickly at the counselor level, the larger conflicts are

similar conflicts. Thus, lessons learned are incorporated into staff training as teaching tools to minimize the occurrence and the severity of conflicts of a particular type. From the agency perspective, this feedback may mean that valuable time and resources will not be wasted in the future. A conflict which has been resolved represents an agency investment of resources that might have been put to better use. So the process of turning conflict resolution into training topics is an important way for the agency to make the most of its investment. If a similar conflict does arise in the future, the agency and staff will be better prepared to handle it in a timely, efficient manner.

Counselors can benefit from such training because it enables them to experience vicariously the entire resolution process the agency uses to avoid litigation. Additionally, counselors are exposed firsthand to the agency philosophy that encourages resolution and litigation avoidance as an appropriate service to be extended to clients. In such an environment, counselors can develop a personal understanding of the clinical or therapeutic advantages that conflict resolutions can secure for the client during the rehabilitation process.

The entire process of litigation avoidance that begins with the agency's proactive willingness to resolve conflicts and ends with conflict resolution as a viable training topic benefits the agency in another important way. Over a period

and of minimizing the impact of conflict should it occur.

Conclusion


Conflict resolution is an important factor in agency accountability because it demonstrates the agency's willingness and ability to settle disputes in a way that enhances the rehabilitation process. While resolution involves litigation avoidance as a primary goal, it does so as a way of conserving agency resources that can be used for other clients.

The fiscal responsibilities of such a stance might best be viewed in its negative form. An agency which does not try to resolve conflict in a practical, constructive way on a continual basis would have difficulty accounting for its actions from the perspective of both clinical need and fiscal management. Such a non-policy would invite litigation and could be expensive to the agency in time and money.

When viewed as a positive attribute of an agency, conflict resolution leads to better services for clients and to a more professional agency. Counselors, as well as other staff members, can improve their client skills and can help ensure that the agency provides the best possible services to its clients.

Conflict can arise from the merits of a particular case or from the agency's own inability to identify methods and resources leading to conflict avoidance. However, once conflict arises, regardless of the reason, the agency and its staff have a public responsibility to resolve it quickly and fairly. If the public expects resolution, the client deserves it. Any dispute can distract from the goal and momentum of a VR case. However, the client is under no obligation to sort out systemic deficits or to endure a long wait while the agency fails to act to resolve a conflict. The agency's desire to resolve conflict can in no way interfere with or delay the client's legal rights to the appeal process as mandated by Section 102(D) of the Rehabilitation Act and 34


C.F.R. Section 361. Any attempt to resolve conflict must not be initiated as a substitute for informing the individual client of his or her rights to appeal agency decisions and to due process.

From a practical point of view, then, the client's cooperation and permission should be obtained at the outset. For, in most instances, the client is a willing and able partner, who wishes to help resolve such disputes because his or her own well-being is involved. The client may desire rapid resolution as much as the agency, because conflict resolution at the service level is less time consuming and less stressful than the formal appeals process. The client may remain cooperative only as long as he or she believes the agency is doing its best to resolve a dispute in a fair manner. The agency, therefore, must take direct action to resolve any conflicts that may jeopardize the client's rehabilitation plan. Only then can the agency fulfill its obligations to the public and to the client. Only then will the client know that he or she does not have to resort to litigation to get appropriate services. 

Computer Access

(Continued from page 6.)

need to accept the personal responsibility for ongoing learning concerning computers and access. Skilled specialists are needed to provide direct services in all categories described herein. The penalty for our not keeping pace with the dramatic changes currently sweeping the contemporary workworld will be experienced by the person with a visual impairment who finds opportunities lost and doors shut due to our computer phobia or our inability to marshal the required energy to establish new programs on personal strengths. The time for action is upon us and we all have new work to do.

Computers are no longer only tools for sophisticates. The information age is changing all areas of work and relevant vocational opportunities. A revolution of unparalleled proportion presents itself. It is an exciting and demanding challenge for us all. Together, we can, and must, rise to meet this historic opportunity, for it is of particular consequence in the lives of people with visual disabilities. 

Department of Education Resource on Disability Statistics Available

Statistics on the range and extent of disabling conditions are now available in one concise volume: the *Chartbook on Disability in the United States*, produced by the Department of Education's National Institute on Disability and Rehabilitation Research (NIDRR).

Discussions of disabilities frequently involve numbers, such as: How many people have a mental disorder? How many children and young people receive special education? In the past, several sources had to be consulted to find ap-

proximate figures and comparative data. The chartbook brings together statistical and survey information that answers the most commonly asked questions.

Material in the chartbook is presented in both narrative and graphic forms. Each page begins with a question on some disability-related topic. Brief statements containing the latest facts and figures on the subject answer that question. This text is then illustrated by a graph or table.

InfoUse of Berkeley, California, developed the chartbook under contract to NIDRR. Copies can be obtained by writing the Department of Education, NIDRR, 330 C. Street, SW, Washington, D.C. 20202.

Integrated Employment for People with Severe Physical Disabilities

case studies and support issues

Abby Cooper
David Mank, Ph.D.

This article describes competitive, supported and integrated employment as it has developed for five persons with severe physical disabilities in Seattle, Washington, and discusses support issues at both individual and program levels.

Supported employment for people with severe disabilities has expanded markedly since its humble beginnings in 1984 (P.L. 98-527; Wehman & Moon, 1988; Kiernan & Schalock, 1986). Starting as an initiative in a few communities in a few states, supported employment is now being implemented in virtually every state in the country (Wehman, Kregel, & Shafer, 1989). The initiative first began with a grass roots concern for the lack of integrated employment opportunities available for people with severe and profound mental retardation (Bellamy, Rhodes, Bourbeau, & Mank, 1986). Only recently has supported employment expanded to include people with other disabilities.

The logic of supported employment is not disability-specific; that is, supported employment can benefit all people who require long-term support to maintain success in employment, whatever the disability label. Supported employment, as a result, has become an initiative that includes people with a variety of disability labels, including long-term mental illness, traumatic head injuries, severe physical

disabilities, and multiple disabilities (e.g., Wehman & Moon, 1988).

While people with severe disabilities other than developmental disabilities are now included in the initiative, the vast majority of people with access to supported employment are those labeled mentally retarded (Wehman, Kregel, & Shafer, 1989). As might be expected, the support strategies most often discussed (e.g., Buckley, Mank, & Sandow, in press) have been designed for those people. Recent months have witnessed an increased investment in expanding supported employment to disability groups other than mentally retarded people. Projects are in existence for people with long-term mental illness (e.g., Noble & Conley, 1987; Anthony, Cohen, & Danley, 1988; Isbister & Donaldson, 1987); and

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people with traumatic brain injury (Kreutzer, & Morton, 1988). Information regarding supported employment has only recently begun to include people with physical disabilities and to address specific support strategies (e.g., Wood, 1988; Sowers, Jenkins, & Powers, 1988; Everson, Hollahan, Callahan, Franklin, & Brady, 1987).

Five Case Studies

The following section describes the employment for five persons with severe physical disabilities who are served by Elliott Bay Employment Services in Seattle, Washington. Not every job placement has been successful. Even so, those who remain employed are successful because the benefits outweigh the difficulties involved, both for them and the employer. Great emphasis has been placed on each participant's job interest. The mean wage was \$5.00 per hour, and each person worked between 20 and 40 hours per week. Prior to entering service with Elliott Bay Employment, none of the participants discussed here had worked competitively or encountered the rigors of daily employment.

June

June was employed as a data entry

clerk for a photo lab. In her job, June's responsibilities included entering all photo orders into the computer so they could be tracked through the plant. June brought a number of strengths to this job. She has excellent social skills and clear speech. Prior to the job, June had been at United Cerebral Palsy's Work Activity Center for 5 years. She has been diagnosed as having the following disabilities: spina bifida, meningomyelocele, ilio loop diversion, paraplegia, VA shunt, thoraco vertebra, osteotomy, and borderline mental retardation.

Support issues. Success on the job has required the resolution of a number of support needs, including transportation, grooming, endurance, bowel control and urine bag problems, support from her residence, overdependence on others, attendance, clarification of employer's expectations, and job performance.

Employment status. During the first month of employment, June worked only 7 hours per week. This required 23 hours per week of coordination and support by program staff. After 9 months of employment, June was working 40 hours per week and receiving ongoing support of 2 hours per week. She was laid off in her tenth month of employment, and chose not to be placed in another position. June's supervisor made sure that June took part in all work related social events, to the point where he took responsibility in arranging her transportation. June had numerous friends on the job, some of which she saw away from work. However, she received little support from her residence and was reportedly subject to physical and verbal abuse in her home for working.

Tucker

Tucker works as a data entry clerk for a hardware store. He is diagnosed as having dystonia musculorum deformans, chronic movement disorder, moderate mental retardation, and speech disorder. His job duties at the hardware store in-

clude entering inventory changes into the computer, placing labels on new inventory, directing customers to store items, and fronting and facing stock items on shelves. From the time he graduated from high school in 1977 until this job, Tucker stayed home.

Support issues. Issues that required resolution for Tucker to succeed included communication, work place, computer training, restructuring of the job to meet both Tucker's and his employer's needs, gross motor control, endurance difficulties, gaining his mother's support, and employer's acceptance of his appearance.

Tucker's disability was far more involved than the employer had envisioned. The

Employment Status. In his first month of employment, Tucker worked 12 hours a week and received 18 hours in direct support and external coordination per week from Elliott Bay Employment. After 14 months of employment, Tucker works 20 hours a week and receives 1 hour of support per week.

Matt

Matt is employed as a factory worker at a rubber plant, where his duties include hand-packaging O-rings, which involves operating a sealer and an O-rings packaging machine. His strengths on the job include clear speech, ability to transfer himself from his wheelchair, motivation to work, and the use of his left hand. His

Starting as an initiative in a few communities in a few states, supported employment is now being implemented in virtually every state in the country.

employer had apparently expected to hire someone whose only disability was being in a wheelchair. When presented with Tucker, the supported employment service had to bridge the gap between expectation and reality. Although his mother gave verbal support to his employment, she was concerned about Tucker using public transportation. By the time the employment support service could no longer provide transportation (after 6 months), Tucker's job was important enough to him and his mother that he began to take the bus to and from work. Tucker agreed to use public transportation, though he dislikes it, because he feels he is an intricate part of the hardware store's workforce. He is well liked by his co-workers, with whom he takes breaks and attends work related social events, such as softball games, company picnics and Christmas parties. He arranges transportation to these events with his co-workers.

diagnoses include spastic quadriplegia, athetosis of the right arm, cerebral palsy, progressive scoliosis, and mental retardation. Prior to this job, Matt had been at a work activity center since graduating from high school in 1986.

Support issues. Success on the job has required attention to a number of support needs, including transportation, attendance, interactions with the supervisor, productivity, clarification of job duties, dependency issues, and behavioral control. Rehabilitation engineering on this site has been extensive though simple. For example, a metal guide was placed on the sealer machine which allows Matt to line up the bag through touch rather than sight, and a plastic plate was mounted on the O-ring machine so that O-rings could be slid onto the belt instead of being dropped, which eliminated Matt's need to use a pinching motion of his fingers. These simple devices increased his overall productivity by 30 percent.

Employment status. In his first week of employment, Matt received 25 hours of support from Elliott Bay and worked 8 hours. After 7 months of employment, Matt works 35 hours a week and receives full-time support from Elliott Bay. This support has primarily involved organizing the work flow, tracking productivity, designing fixtures, facilitating an appropriate relationship between Matt and his supervisor, and presenting strategies on maintaining appropriate behavior at work.

Sadie

Sadie is employed as a check proofer in a bank, where her duties involve pulling checks and bills from open envelopes and stacking them into piles, processing ripped checks and removing staples from checks. Her diagnoses include spastic quadriplegia, cerebral palsy and moderate mental retardation.

Support issues. Her support issues have included increasing her work speed, endurance, transportation, inconsistent work performance, dependence issues, perceptual problems, difficulty in comprehending expectations, and a supervisor who expressed fear about Sadie's disability. She has been at home since graduating from high school. Throughout school she was not in integrated classrooms. It was a major adjustment for her to realize the employer had the same expectations for her as he had for other workers, namely, she was expected to perform the whole job, her performance was to be rated by set standards and she would be required to follow instructions.

Employment status. During her first month of employment, Sadie worked 6 hours a week and received 26 hours of support from Elliott Bay Employment. One year later, she is working 20 hours per week, receives 2 hours of support each week from program staff, has established a strong friendship with her supervisor, attends work related social events, and takes breaks with her co-workers. She is

well liked and accepted by co-workers.

Gabe

Gabe has been placed in two jobs by Elliott Bay Employment. Initially, he was employed as a film splicer at a photo company. He worked this job for 6 months, with duties including splicing together video film, packaging and labeling the completed orders. His second job was at an artificial tree factory, where his duties included folding leaves, painting and shaping tree stems. Gabe's strengths on both jobs included a willingness to use the bus system, a knowledge of bus routes, the ability to get around independently on crutches, good dexterity,

supervisor would not let Gabe use the systems and fixtures that enabled him to do his job. Without the system in place, Gabe could not function in an organized manner. During his first month of employment, he worked 10 hours per week with Elliott Bay Employment providing 30 hours each week in coordination and support. At the time he was laid off, Gabe was working 25 hours per week and receiving 4 hours of support per week.

Employment status. Gabe has been employed for the last 7 months at the artificial tree factory. During his first month of employment, he worked 20 hours per week and received 20 hours of support.

Prior to entering service with Elliott Bay Employment, none of the participants discussed here had worked competitively or encountered the rigors of daily employment.

and a positive attitude. His diagnoses include severe sensory neural hearing impairment, cerebral palsy, congenital knee malformation, and borderline mental retardation.

Support issues. Gabe lacks verbal skills and only understands simple written statements. He tends to say "yes" or to appear to agree with statements without necessarily understanding the question or direction given. After referral, his support from home appeared insufficient. His home providers believed that the job coach must be licensed in sign language. Messages were not relayed to Gabe, thereby preventing him from attending a job interview. His home provider also did not want him to start work once he was hired. The employment service requested and received the county's assistance in obtaining support from Gabe's residential provider. One month into his first job, he injured his shoulder and was off work for 6 weeks. Upon his return to work, it became evident that his new supervisor was not supportive of him. The new

After 2 months, he became well versed in his performance systems and the job coach began to fade. Presently, he works 20 hours a week and receives 2 hours of support. He has established friendships that are strong enough that co-workers have learned sign language on their own time so they could better communicate with him.

Overview of Support Issues

Many of the issues faced by people with physical disabilities in integrated employment parallel those of other people receiving supported work services. It is not the uniqueness of specific issues that are different. Rather, differences appear in the extent of coordination and the variety of supports and resources required. These five examples present different employment scenarios and support issues. However, given their individual differences, there are a number of recurring issues which should be considered in supporting people with physical and multiple disabilities in community jobs.

For the purposes of this article, these issues are organized into three main categories:

- The category of *Individual Training and Direct Services Issues* addresses client needs in terms of physical supports, skills and behaviors.

- *Employer Support Issues.* These employers were not familiar with employing persons who have multiple disabilities, although they did indicate an interest in hiring someone with a disability. However, these employers apparently had not envisioned a person with such a variety of disabilities. Employers frequently indicated uncertainty when it was difficult to communicate with the person or when it was necessary to use an alternative method of communication. Like the general public, businesses have had very limited exposure to people with multiple disabilities. Even so, four of these workers have developed notable relationships with co-workers.

- *Systemic and External Coordination Issues.* Perhaps, because people with severe multiple disabilities have traditionally been isolated from the community, they frequently have not learned basic community skills, such as wheelchair safety when crossing streets, use of public transportation, interactions with strangers, and dressing appropriately for the season. This area examines some of the external structures necessary for a placement to succeed.

Table 1 depicts these issues and support strategies. Table 2 presents a summary matrix of issues and basic strategies.

Discussion

This program was founded on the assumption that reasonable paying job opportunities were available for people with severe multiple disabilities if a place-train supported work model successfully matched clients and jobs, developed employers carefully and used available technology. Although this assumption has

proven to be accurate, it also oversimplifies the issue. It fails to consider the complexity of coordinating the supports needed and the limited opportunities available in natural, community settings.

Employers frequently indicated uncertainty when it was difficult to communicate with the person or when it was necessary to use an alternative method of communication.

These case studies provide information about the successes of clients and the range of support needed for ongoing employment. From the experience with these cases, several points are clear.

- Many people with severe physical disabilities or multiple disabilities can work successfully if provided individualized support.

- Support requirements were intensive, at least initially, in each job situation.

- Expectations, on the part of the worker and the employer, must be addressed directly from the beginning.

- Family or residential support is extremely important to success.

- Job matching must be done carefully if integration is to occur.

- Costs are high for planning and ongoing support.

To be considered severely disabled and yet able to function, even with supports, in the “able-bodied” world is a notable task. The persons described here have spent years in environments with few opportunities and expectations. The routines and expectations in a 120-bed institution are often the antithesis of requirements in a competitive job. Some severely disabled people have never been allowed to participate with independence and, in fact, may have been taught to be overly dependent on others — sometimes, strangers — to help with basic needs. Some disabled people are encouraged to rely on assistance even when assistance may not be needed. It is critical for employment

support personnel to understand this so they may provide clarification and support to the client on how independent and interdependent behaviors can enhance one’s image with co-workers and

employers. It is important that the job coach not consider such behaviors manipulative.

Another side of the issue is that significant others — frequently, paid staff — may have an investment in a client being dependent and may harbor fears about what will occur once that person begins work. Thus, it is necessary for the supported work service to be capable of providing intensive coordination and individualized case management to the client. Residential providers and families need support and assistance in understanding the importance of their role in helping the client cope with his or her changing expectations and definition of success. All too frequently, people with severe disabilities and multiple disabilities have never been asked to view themselves as capable and contributing citizens, even though projects such as the one described here support this more positive image.

The experience with these five clients also suggests that rehabilitation engineering is often expensive and not always readily available. High technology does not appear to be a “cure-all.” Often, the key in these situations was finding a job that highlights a person’s strengths rather than providing expensive equipment. It is more difficult to create a good job match for a client than to figure out technically how to make a job work for that person. If elaborate and expensive rehabilitation engineering proves necessary, perhaps the

Table 1
Support Issues

Issue	Support Response
Training & Direct Service	
Grooming (three sites)	<ul style="list-style-type: none"> • Provided transportation and appointments for haircuts and shopping for work clothing. • Arranged Vocational Rehabilitation and JPTA payment. • Extensive work with home providers. • Individualized training at home on clothing care. • Set up bathing and grooming schedule.
Bowel/Bladder Control (one site)	<ul style="list-style-type: none"> • Set up frequent bathroom schedule. • Requested specialist to look at equipment. • Worked with nursing staff to set up home schedule. • Went to residence daily to insure proper preparation.
Social Skills & Behavior (all sites)	<ul style="list-style-type: none"> • Restructured jobs. • Provided training on listening, courtesy and paraphrasing, ramifications of actions. • Held 'team' meetings with residential supports.
Expectations & Apparent Learned Dependency (all sites)	<ul style="list-style-type: none"> • Arranged counseling. • Trained employer to encourage independence. • Provided training on 'we will help you learn it but won't do it for you.' • Provided training on clarification and understanding of expectations.
Endurance (all sites)	<ul style="list-style-type: none"> • Consultation with occupational therapist and rehab engineer. • Adaptive devices for comfort and position. • Designed fixtures for speed, job modification. • Coordinated home support. • Modified jobs for ease in performance.
Communication (two sites)	<ul style="list-style-type: none"> • Taught use of pictures for communication. • Set up poster signs for co-worker involvement. • Provided signing lessons and interpreter. • Taught co-workers to word questions in a manner that they could be answered in simple statements.

and Responses

Issue	Support Response
Employment Support Issues	
Employer/Co-Workers Uncertain (three sites)	<ul style="list-style-type: none">• Provided information to employer and co-workers.• Supported co-workers who were positive.• Started job with restricted job duties, then expanded job later.
Supervisor Support (two sites)	<ul style="list-style-type: none">• Frequent supervisor contact.• Arranged for press coverage about the job.• Began working through a more supportive supervisor.
Employer Uncertain on How to Supervise (all sites)	<ul style="list-style-type: none">• Provided training to supervisor on how to give instructions and negative feedback.• Provided training on how to interpret and accept instructions.
Systemic & External Coordination	
Transportation (all sites)	<ul style="list-style-type: none">• Provided travel and safety training.• Used taxis and Seattle Personnel Transportation.• Worked with city for curb cuts, putting in lights, cross-walks and signs.• Lights for wheelchairs (paid for by DVR).
Apparent Poor Job Match (one site)	<ul style="list-style-type: none">• Changed job within business.• Program performed job duties while developing ways to modify job for the individuals.
Health (four sites)	<ul style="list-style-type: none">• Worked with home on self-care.• Planned intervention to increase working time.• Worked with individuals to understand the impact of being tired had on one's body and disability.
Family/Residence (three sites)	<ul style="list-style-type: none">• Frequent home contacts.• Modified schedules.• Coordinated interventions for personal care, schedules.• Kept families informed.• Recommended marital counseling.

Table 2
Support Strategies

Support Strategies	Individualized Training	Supervisor & Co-Worker Support	Job Modification & Adaptation Equipment	Family/ Residence Coordination	Transportation Coordination with City	Related Services (OT/MD/etc.)
Training & Direct Service						
Grooming	✓			✓		
Bowel/Bladder Control	✓			✓		✓
Social Skills	✓	✓	✓	✓		
Expectations & Dependency	✓	✓		✓		✓
Endurance	✓		✓	✓		
Communication	✓	✓	✓			
Employer Issues						
Uncertainty		✓				
Unsupportiveness		✓	✓			
Systemic & Coordination						
Transportation	✓				✓	
Poor Job Match	✓	✓	✓			
Health						✓
Family/Residence				✓	✓	

quality of the job match needs to be examined. Often, technological solutions can be found by redesigning jobs or devising simple, inexpensive fixtures.

Each of the persons in these case studies now have jobs that match up with their personalities and interests, and with employers who are interested. These factors appear to set the right environment for integration to occur on the job. People in various work environments were receptive to each of these persons and co-workers took on active roles to ensure that the severely or multiply disabled employee was accepted. It has been the

experience of this project that if a business is willing to hire someone who has multiple disabilities, the business is also willing to actively help that person integrate socially into the work environment.

Finally, we must state that this project is costly, with an average placement costing about \$16,700. Since the project has only been in existence for 16 months, there is too little data to determine if the cost will decrease significantly over time. This raises the question of how willing and capable the service system is to support people with severe physical disabilities in competitive employment.

Even while it is popular to place people who are severely physically disabled into competitive employment, access to resources has been limited.

Conclusion

After evaluating the success of supported employment in the lives of the five persons described in this article, it is clear that both systemic barriers and individual support issues have required significant attention. The strategies reviewed here have addressed some of these barriers and have shown that the issues confronting severely and multiply disabled people in

employment can be solved. As with people with other disability labels, individualized support and ongoing problem solving has resulted in successful employment experiences. However, this requires significant financial and support resources. Some may ask if we can afford to do this; yet, in terms of the alternative — idleness, and the high cost of supporting that idleness — can we afford not to? Certainly, these five clients would not have entered employment without support services. I believe their success sends a strong message, and that it is time that we view *all* people with physical disabilities as having the potential to succeed in integrated employment.

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NEWS, NOTES, ANNOUNCEMENTS

New System Provides Exercise for People with Spinal Cord Injury

People paralyzed by spinal cord injury can now "work out" with a special computerized rehabilitation system that uses electrical stimulation to move leg muscles in a pedaling motion.

The REGYS I and ERGYS I rehabilitation systems are special exercise machines that tone leg muscles and strengthen the cardiovascular system with aerobic exercise. Marianjoy Rehabilitation Center, Wheaton, Illinois, is the first facility in this state and one of only six in the Midwest to offer the REGYS I system. The center operates two ERGYS Home Rehabilitation systems for graduates of the REGYS program.

The systems use a type of computerized functional electrical stimulation (FES) to contract the leg muscles in a precisely timed sequence.

"REGYS therapy does not cure paralysis, but it does offer physical benefits to spinal cord injured people not realized with other types of therapy," said Dr. Jeffrey Cameron, medical director at Marianjoy. "The systems allow spinal cord injured people to exercise their legs and gain all the physical and psychological benefits of exercise — something they thought they'd never do again."

There are an estimated 220,000 people with spinal cord injuries in the United States with an estimated 7,800 new cases occurring each year. Many spinal cord injured people experience secondary problems, such as deterioration of the muscles, skin, bones, and circulatory and cardiovascular systems. Because of medical advances, people are surviving these secondary complications; now,

medical problems, such as heart disease, are a concern for those with spinal cord injury.

New technology used to develop the REGYS and ERGYS I systems is playing an important role in improving the general health of disabled people. People who use REGYS I and then continue therapy with the ERGYS system can strengthen their cardiovascular system, improve circulation, increase muscle bulk, and heighten self-esteem, because their legs appear more "normal."

"The increased muscle bulk and improved circulation may also prevent pressure sores, which are the most common reason spinal cord injured people require re-hospitalization," Dr. Cameron said.

"The system is designed to benefit spinal cord injured people whose leg nerves are intact," he said. "Before a patient begins the program, we examine the patient's bone structure, heart and nervous system to determine whether that person is a good candidate for REGYS therapy."

Therapy on the REGYS system occurs in two stages. The first stage acclimates the patient to stimulation and strengthens the leg muscles by moving the patient's legs in a motion similar to exercise on a leg lift machine. The second stage involves sequential stimulation of the quadriceps, hamstring and buttock muscles to activate the patient's legs in a pedaling motion. Eighteen electrodes are placed on the appropriate muscles and the patient's feet are fitted into boots attached to the system's pedals.

The REGYS I system has a unique feedback mechanism that senses muscle fatigue or spasms, according to center staff. This feature prevents damage to the muscle tissue by alerting the therapist

when to readjust the system; if necessary, the system will automatically shut down.

After successfully completing the therapy program on the REGYS, which averages 3 to 4 months, patients begin the next level, known as ERGYS I. Unlike the REGYS, which requires a therapist to set up the sequencing, resistance levels and timing of the patient's workout, the ERGYS operates from a computer cartridge that is developed from the REGYS. The cartridge is programmed with the resistance level and timing of the patient's workout and, therefore, does not require a therapist.

People can use the cartridge in any ERGYS system, enabling them to maintain a lifetime of therapy at home or at a rehabilitation center. ERGYS users' performance at the center is evaluated and their workouts are updated every 3 months by reviewing the data collected on their computer cartridges.

Marianjoy recently purchased two ERGYS systems that are operated in the Wheaton and Hoffman Estates facilities. One ERGYS system was donated by the Amoco Foundation and the second was purchased by Marianjoy in September 1989. Marianjoy is working towards making the benefits of this technology more accessible and has plans to place additional systems in the Chicagoland areas in spring 1990.

"With the REGYS and ERGYS systems in place, we hope to encourage patients to live healthier, more active lives," Dr. Cameron said. "In the near future, we hope to see ERGYS systems in health clubs throughout the Chicago area."

To participate in the REGYS/ERGYS program, call the Marianjoy physical therapy department at (708) 462-4038.

Marianjoy Rehabilitation Center is a 100-bed freestanding physical rehabilitation center specializing in the delivery of physical rehabilitation services. The people it serves have been pulled from the mainstream of life due to birth defects,

traumatic accidents, serious illnesses, or other disabling events. The center's programs and services have earned it the distinction as the Nation's Outstanding Physical Rehabilitation Center. Marianjoy Rehabilitation Center is a member of the Wheaton Franciscan System.

New Jersey Court Rules for Disabled Student

Last July, the New Jersey Supreme Court ruled that when a parent of a disabled student challenges the appropriateness of the educational program proposed by the local school district, it is up to the school board to prove in an administrative hearing that the plan is appropriate.

In the decision, *Lascari vs. the Board of Education of the Ramapo Indian Hills Regional High School*, the school district had to reimburse the family \$34,450 in tuition costs for a private school in Massachusetts. The school board is not responsible for the cost of room and board.

Traveling Nurses Make Traveling Easier for Disabled People

A new service for disabled people promises to ease the trauma that often accompanies them when they travel.

The Traveling Nurse's Network can provide registered nurses for any traveler's trip or tour, regardless of the disability, whether it is permanent or temporary. Anyone who needs health care can be helped. Also, children and senior citizens who need reassurance can benefit.

The organizer and executive director of the agency is Helen Hecker, R.N., speaker, columnist, author of several books for disabled travelers, and a seasoned travel escort.

The agency consists of registered nurses with expertise in all medical areas, including: diabetes, dialysis, cardiology, respiratory disease, spinal cord injury, blindness and visual-impairment, deafness and hearing impairment, developmental disability, and psychiatric. Wheelchair travelers are a specialty. The agency can staff groups of travelers too. Costs will vary depending on individual need.

Traveling Nurse's Network can also assist with a multitude of travel resources, including travel arrangements through an agency that specializes in travel for disabled people, providing program or respiratory equipment, equipment rental, specially equipped vans, accessible accommodations, available group tours, etc.

Located in Vancouver, Washington, and Portland, Oregon, Traveling Nurse's Network can provide nurses anywhere in the world.

Special Directories Now Available in Virginia for Hearing Impaired

New community resource directories now offer deaf and hearing impaired Virginians the opportunity to enhance their independence as they go about their daily activities.

Available free of charge, five different directories have been compiled, representing major geographic areas of the Commonwealth. Each of the publications focuses on one of the following areas: Central Virginia (Richmond, Petersburg, Colonial Heights area), the Tidewater area, Southwest Virginia, Northern Virginia, and the northwestern Virginia area (Charlottesville, Shenandoah Valley).

According to a spokesperson from the Department of Rehabilitative Services (DRS), the directories are a "first" for Virginia and are important because hearing impaired people "need a written source of communication and no one else speaks their language."

The directories are written in American Sign Language and tailored specifically to the needs of consumers. Published cooperatively by DRS, the Department for the Deaf and Hard of Hearing and independent living centers throughout the state, the publications offer a wide range of resource information. For example, businesses and organizations with available telecommunication devices for the deaf (TDD) are listed to aid the user in carrying out such activities as banking, paying bills and accessing public transportation. Medical, social services, recreational, and employment information also is covered, along with legal and counseling services.

Study Shows Blind and Visually Impaired Women Fare Worse Economically

An education does not provide economic opportunity for blind and visually impaired women equal to that provided to their sighted peers, male or female, or to blind and visually impaired men, according to the preliminary results of a 3-year national study conducted by the American Foundation for the Blind (AFB) and Mississippi State University.

The preliminary survey results, based on a study of 379 employed people, were announced recently at AFB's 65th Research Practice Seminar held in conjunction with the Southeast Regional Conference of the Association for Education and Rehabilitation of the Blind and Visually Impaired (AER) in Orlando, Florida.

"Through this survey, we've attempted to compare the impact of educational background on current occupational status and life satisfaction for blind, visually impaired and sighted people, respectively," said Corinne Kirchner, Ph.D., director of AFB's social research department. "We based our survey on

379 employed people with varied educational backgrounds.”

Among the findings were the following:

- Only 16 percent of the blind and visually impaired women surveyed have a household monthly income of \$2,500 or more (from all sources, including housemates) compared to 42 percent of the blind and visually impaired men. Twenty-seven percent of sighted women have a household monthly income of \$2,500 or more (from all sources) as do 48 percent of sighted men.

- A blind or visually impaired woman with a college education makes an average of \$1,786 in monthly household income (from all sources) compared to \$2,394 for sighted women, \$2,710 for blind and visually impaired men, and \$2,824 for sighted men.

- The difference in monthly household income (from all sources) between college graduates and nongraduates is only \$276 for visually impaired women, compared to a difference of \$631 for sighted women, \$778 for visually impaired men and \$823 for sighted men.

For legally blind respondents, work satisfaction decreases with education. Only 44 percent of visually impaired college graduates, male and female, report they are “very satisfied” with their work, compared to 53 percent of visually impaired noncollege graduates who report they are “very satisfied” with work. In contrast, 59 percent of sighted college graduates report they are “very satisfied” with their work, compared to 50 percent of sighted noncollege graduates.

“Although past studies have indicated the generally lower earning power of women throughout society, this survey demonstrates that blind and visually impaired women are doubly disadvantaged because of their sex and their disability,” according to Katherine Nelson, M.A., senior research associate at AFB, who presented the findings at the Research Practice Seminar.

For more information about the

survey, write to Katherine Nelson, senior research associate, Social Research Department, American Foundation for the Blind, 15 West 16th Street, New York, NY 10011.

Easter Seals Offers Environmental Control Software for Disabled

The National Easter Seal Society’s computer assistive technology services (CATS) are now offering a sophisticated environmental control software, the CINTEX (TM) system, for people with severe disabilities, the Society’s President, John R. Garrison, has announced. The software is made possible through a partnership between the National Easter Seal Society and NanoPac, Inc., and through an existing relationship between IBM and Easter Seals. The CINTEX system works with IBM microcomputers, currently available through Easter Seals at significant discounts for people with disabilities.

“CINTEX is NanoPac’s premier product,” according to William M. Salyers, Ed.D., director, assistive technology, National Easter Seal Society. Dr. Salyers said that CINTEX makes it possible for people with severe disabilities to speak and control their environment through a series of simple commands — activated by the wink of an eye, the twitch of a toe, a mouthstick, or a voice.

NanoPac President Silvio Cianfrone said that the CINTEX system can control as many as 256 household devices without any additional wiring in a home or business. “The implications are important,” Mr. Cianfrone said. “With CINTEX, someone who is severely movement impaired can answer the telephone, turn on lights, use household appliances, turn on a television and, if needed, write on a computer using voice commands or command a computer to speak.”

With CINTEX, persons who cannot

speak have a system that will predict letters of the alphabet most often used, as well as predict the vocabulary of the user — as the system automatically “learns” the user’s preferred vocabulary.

Marilyn Hoggatt, who is quadriplegic, has used the CINTEX system for the last several months. Ms. Hoggatt reported, “CINTEX has opened new doors for me. I am returning to college in the fall to earn additional credits to become a licensed professional counselor after completing my master’s degree in counseling psychology. CINTEX will aid me in my studies as well as in my new position with Developmental Disabilities Resources.”

The CINTEX system is available through the National Easter Seal Society’s Computer Assisted Technology Services. For information contact William M. Salyers, Ed.D., at (312) 667-8400. Or write to CATS, Easter Seal Systems, 5120 South Hyde Park Boulevard, Chicago, IL 60615.

Low Interest Loans for Reading Machines

The American Foundation for the Blind (AFB) is now accepting and processing applications from blind and visually impaired people of all ages for low interest loans to help purchase a portable reading machine called the Personal Reader, a computer-based system that reads typeset or typewritten print and turns it into easily understood synthetic speech.

AFB and the Xerox Corporation have each committed \$1 million to launch the loan fund.

To be eligible, blind and visually impaired applicants must demonstrate financial need, an ability to handle the carrying costs of the loan and a need for a reading machine in education, vocational training, employment (including self-employment) or community service work.

To obtain an application form, call AFB's toll-free hotline, 1-800-232-5463; New York residents call (212)-620-2147. Applicants should specify a preference for a large-print form or a braille form.

For more information about the loan program, write to Mark Uslan, AFB's National Consultant on Orientation and Mobility and Loan Program Coordinator, American Foundation for the Blind, 15 West 16th Street, New York, NY 10011; or call (212) 620-2041.

Developed by Kurzweil Computer Products, Inc., a Xerox company based in Cambridge, Massachusetts, the Personal Reader can include an easy-to-use, hand-held scanner, a desktop scanner or both. Under the Loan Fund the device is being offered at a 30 percent discount and a reduced interest rate.

Goodwill, DVA Sign Cooperative Agreement

Goodwill Industries of America, Inc. (GIA) and the U.S. Department of Veterans Affairs (DVA) have signed a Memorandum of Understanding supporting cooperation and collaboration between GIA and the DVA's Vocational Rehabilitation and Education Department to provide quality rehabilitation services to the nation's disabled veterans.

David M. Cooney, president of GIA, and Dennis Wyant, director of DVA's Vocational Rehabilitation and Education Department, signed the agreement towards the end of last summer.

"This agreement supports an exchange of information, promotes referrals and encourages collaboration on seeking solutions to the unmet needs of disabled veterans," said Mr. Cooney.

Although signed on a national level, implementation of the agreement will occur locally. In 1988, 61 Goodwill agencies reported providing vocational rehabilitation services for veterans refer-

red by local DVA Vocational Rehabilitation and Education Departments. The Memorandum of Understanding is designed to increase referrals and the number of disabled veterans served.

"We are most interested in contracting for services of the highest quality, delivered in a timely fashion for disabled veterans," said Wyant. "Goodwill facilities, staffed with personnel having the expertise to work with persons with disabilities have been, and will increasingly continue to be, a resource for us." Goodwill Industries of America, Inc., is North America's leading nonprofit provider of vocational rehabilitation and employment services for disabled and vocationally disadvantaged people. In 1988, vocational rehabilitation services were provided to 86,634 people through the network of 177 local, autonomous Goodwill Industries agencies in the United States and Canada. More than 15,000 people were placed in competitive employment. With a strong international presence, including 44 affiliates in 30 countries outside North America, Goodwill Industries also is the world's largest private employer of people with disabilities, employing 53,276 people in its own facilities, retail outlets and industrial contract programs in 1988.

AARP Publications Available on Cassette

Twenty-eight informational publications covering everything from how to select doctors to planning your retirement and buying long-term care insurance are now available on cassette, free of charge, from many regional and subregional libraries for the blind and physically handicapped — thanks to a collaborative venture between the American Association for Retired Persons (AARP) and the American Foundation for the Blind (AFB).

The project was launched nearly 1 year ago to improve access to timely and practical information in print for nearly 2 million elderly visually impaired Americans.

AFB organized AARP's most popular publications into six categories — medical care, housing and living arrangements, consumer issues, financial matters, health and nutrition, and long-term care — recorded and duplicated them, and sent each regional and subregional library an order form. To date, the response has been exceedingly positive, AFB reports.

"This important pilot project reflects effective cooperation between two organizations — a national blindness organization and the largest consumer-based senior citizens group — that provide services to common constituencies," said AFB Executive Director William F. Gallagher. "We look forward to working with AARP on other projects in the future."

Moss Rehab Hospital Announces Stroke Center

Moss Rehabilitation Hospital has announced plans to establish the Moss Stroke Center, a regional center for neurological disease rehabilitation, research and training. The announcement was made by Randall L. Braddom, M.D., Vice President for Medical Affairs for the hospital's parent corporation, Moss Rehab, Inc.

Moss has a 30-year history of leadership in services for stroke patients, and is the largest provider of stroke rehabilitation services in the greater Philadelphia area. Last year, Moss treated more than 900 stroke patients, with a 10 percent increase in this number each year over the past several years. In addition, the hospital has been active in research on stroke prevention and rehabilitation.

Stroke is the third most common cause of death and the single most common

cause of disability. In the Delaware Valley alone, more than 21,000 people will survive stroke next year. The survival rate has increased dramatically in recent years due to advances in the acute care health system. Today, 60 percent survive. However, this leads to increasing demand for poststroke services. Of the survivors, fully 66 percent are sufficiently impaired to require rehabilitation.

"Yet, at present, only 21 percent of stroke survivors receive rehabilitation," explained Dr. Braddom. The goals of poststroke treatment are to limit long-term disability and lessen the patient's chance of having another stroke. "Expansion of our program into a regional center is a logical step," Dr. Braddom added. "With the extensive range of services we have in place and the depth of experience of our staff, Moss is in a unique position to address these goals."

Programs and services available through the Moss Stroke Center will include: comprehensive therapeutic, medical and psychosocial services; educational and training programs for professionals, stroke patients and stroke relatives; driving evaluations and training; functional diagnostic laboratories, such as the Gait Analysis Laboratory and the Brain Electrodiagnostic Laboratory; an on-site orthotics service which manufacturers and fits braces; research in stroke prevention and rehabilitation; support groups for patients and families; an Adaptive Designs for Living Service; and a Human Performance Laboratory.

While Moss continues to treat patients with stroke and other neurological diseases, the Moss Stroke Center is scheduled to open this winter.

Moss, celebrating three decades of distinguished service to the community, is located at 12th Street and Tabor Road in Philadelphia's Olney section.

AFB Launches Public Education Campaign

In response to the concerns of educators, parents and the business community, the American Foundation for the Blind (AFB) has launched a major public education campaign to promote literacy among blind and visually impaired people.

The campaign aims to underscore the critical shortage of teachers qualified to teach braille reading as well as the need for recruitment and funding for teacher education programs serving the unique needs of blind and visually handicapped children and recently blinded adults. In addition, the program will promote the unique range of reading and writing mediums available to visually impaired people through feature articles, public presentations and speeches, exhibits and publications.

"For the visually impaired person who cannot make good use of print, braille is the only means of learning how to read and write," said Susan J. Spungin, Ed.D., AFB's associate executive director for program services. "Yet, for a variety of reasons, access to instruction in braille has greatly declined over the past 20 years. There is growing concern about the impact of this trend on visually impaired people competing for education and job opportunities in a predominately sighted world."

Dr. Spungin noted that the American Printing House for the Blind reported that 60 percent of legally blind students used braille in 1963 as compared to 12 percent in 1987. And although information is widely available to visually impaired people on audio form, educators report that growing numbers of visually impaired school-age children are deficient in such fundamental skills as spelling, syntax and grammar. For all practical purposes, these students are functionally illiterate.

Among agencywide initiatives to promote literacy:

- Braille literacy was the subject of a half-day panel at the Josephine L. Taylor Institute, AFB's annual leadership institute for professionals in the blindness field, held earlier this year.

- The June 1989 special issue of AFB's Journal of Visual Impairment and Blindness (JVIB), the leading international journal on blindness and low vision, featured discussion on how the choice of a reading and writing medium — print, braille, or a combination of the two — impacts the literacy rate of blind and visually impaired people.

- An AFB professional chairs the Coalition of Information Access for Print Handicapped Readers, a network of organizations that aims to establish a centralized listing of all materials produced in braille and other formats.

- AFB is participating in a national advisory committee with other organizations brought together by the National Library Service for the Blind and Physically Handicapped of the Library of Congress to explore the feasibility of a national braille competency test for teachers of braille.

- AFB staff are available to speak about braille literacy to groups of blind consumers, as well as blindness and education professionals.

- An exhibit on literacy for blind and visually impaired people will be launched in New York City in January 1990 to inaugurate International Literacy Year, designated by the United Nations Educational, Scientific and Cultural Organization (UNESCO). The exhibit will be available for site placements throughout the country.

PUBLICATIONS & FILMS

Meeting the Needs of People with Disabilities: a Guide for Librarians, Educators, and Other Service Professionals. Ruth A. Velleman, author. The Oryx Press, Suite 103, 2214 N. Central at Encanto, Phoenix, Arizona 85004-1483. Toll free, 1-800-457-ORYX (In Arizona, Alaska or Hawaii, call (602) 254-6156.) 288 pages. Hardcover, \$34.50.

People with disabilities often look to librarians, educators, or social workers for help on where to find more information about their conditions and advice on living day-to-day with their disabilities. This new resource seeks to help professionals better educate themselves on information and services specifically designed for people with disabilities and can be used by those who are seeking new knowledge about disabilities.

Twelve chapters cover attitudes about disabilities; definitions of disabilities; civil rights; living with a disability; new computer technology; information on rehabilitation and special education; and applications for public, academic and rehabilitation libraries.

Five appendices list agencies and services for people with disabilities and a topical bibliography alphabetizes entries under specific subheads.

Quicki-Mini Stress-Management Strategies for You, A Person with a Disability. David Danskin, Ph.D. and Dorothy Danskin, authors. Guild Hall Publications, 1716 Poyntz, P.O. Box 133, Manhattan, Kansas 66502-0002. 145 pages, \$12.50, plus \$2.50 handling and shipping.

The authors explain simple, brief stress management techniques which research has shown to be effective. The techniques are said to require little time to learn but

can be used anywhere or anytime the reader feels stress or wants to relax to deal with stress. Some techniques are useful for all disabilities, while others are designed for specific ones.

The book is divided into three main sections. The first explains the impact of stress that occurs in day-to-day living and why brief, instant techniques work best. The other sections provide instructions for a variety of adaptive exercises and helpful life skills that reduce personal stress. Dr. Danskin is a counseling psychologist who has provided stress management training to business and consumer groups. Ms. Danskin has worked in public school systems with children who have disabilities.

Home Health Aides: How to Manage the People Who Help You. Alfred H. DeGraff, author. Saratoga Access Publications, Box 2346, Clifton Park, New York 12065-2346. 352 pages. \$18.95, plus \$3.00 for postage and handling (\$7.00 for postage and handling by air outside of the U.S. and Canada).

A step-by-step handbook reference which extensively teaches people who use home health aides, or personal care attendants (PCA's) how to find, train, manage, and pay these workers while keeping them happy.

For over 20 years, the author has recruited, trained and managed the PCA's whom he has employed. As a spinal cord injured, quadriplegic user of a motorized wheelchair, he has recruited and managed help in a variety of settings that include college campuses, career offices, urban apartments, rural homes, health facilities, and international business and vacation travel.

When this assistance is provided depen-

dably, efficiently and on a consistent schedule, the recipient of help can lead the lifestyle and daily schedule that he or she chooses. The recipient is in control of his life and truly lives independently. In contrast, when assistance is unreliable, of poor quality and provided on a sporadic schedule, the recipient has lost control. In many cases the care provider now controls the recipient's lifestyle and daily schedule, consciously or not.

A recent survey indicates that over 5 million American adults with physical limitations have a temporary or life-long need for assistance from personal care aides. Categories of help can include getting dressed, transferring to a wheelchair, grooming, bathing, toileting, cooking and eating, housecleaning, and transportation.

Yet many service recipients lack the skills to manage the people who provide this help. Several studies have concluded that there is one predominate reason for service recipients to lack control of their own lives: their lack of training in attendant management skills.

Over 85 topics in this new release teach management skills. Topics include reasons PCA's quit or are fired, settings for using help, strategies of a good manager, factors of good work environments, types of needs which do or do not qualify for requesting help, assertive-aggressive-passive ways to request help, making a list of personal needs, creating a job description, sources and methods for recruiting-interviewing-screening, secrets of hiring and training, parting ways by firing and resignation, using agency versus personally recruited help, and 10 guidelines for maximum independent living.

The Disability Bookshop Catalog. Helen Heckler. Twin Peaks Press, The Disability Workshop, P.O. Box 129, Vancouver, Washington, 98666. Toll-free number, 1-800-637-2256. No charge, but send \$1.00 for postage. Also available on audio cassette for \$3.50 postage and handling.

This catalog lists titles of interest to people who are disabled as well as those with general health problems. It includes books about pain, aging, general medical topics, cooking, computers, travel, sewing, education, exercise, employment, sports/physical education, sexuality, self-help/inspiration, resource directories, aids/products/programs, home nursing care, shop-by-mail sources, personal experience, children's needs, and how to start a business at home. Many books are in large or larger type. For more information, call (206) 694-2462.

Patrick and Emma Lou. Nan Holcomb. Jason & Nordic Publishers, P.O. Box 1123, Exton, Pennsylvania 19341. \$5.95.

Latest in a special series of books — TURTLE BOOKS — for small children with big problems, this book gets into the life of Patrick, a 3-year-old boy with cerebral palsy, and describes the excitement and frustration as he learns to walk. Emma Lou who is 6 years old and has spina bifida becomes his understanding friend.

There are more than 100,000 children born each year with major birth defects. They will all have feelings of frustration and "Why me?" at some time. Many will never voice these feelings because they are unable to communicate. TURTLE BOOKS, in a nonthreatening way, seeks to show them that these feelings are acceptable and shared by others.

TURTLE BOOKS are written especially from the viewpoint of the young child with disabilities.

Directory of Travel Agencies for the Disabled. Second edition. Helen Heckler, author. Twin Peaks Press, The Disability Workshop, P.O. Box 129, Vancouver, Washington 98666. Toll-free number, 1-800-637-2256. \$12.95, plus \$2.00 shipping.

This book lists more than 350 travel

agencies throughout the world, with special emphasis on the United States and Canada; it was designed for the disabled traveler, for those disabled people who would travel if they knew there were travel agents who specialize in arranging travel for people who are disabled, and travel agents who may need to consult with agents in other cities on his client's itinerary. The disabled traveler may need to locate an agent in his area and at his destination point.

Homebound Teaching: A Handbook for Educators. Nancy R. Macciomei and Douglas H. Ruben, authors. McFarland & Company, Inc., Publishers, Box 611, Jefferson, North Carolina 28640. 208 pages. Hardcover, \$28.50, plus \$2.00 handling charges.

This handbook provides practical strategies tailored to meet the urgent needs of homebound teaching professionals. Special educators will find this guide useful for interpretation of 94-142, modification of curricula, managing student behavior, and medical background on different orthopedic disabilities.

Program Planning and Evaluation for Blind and Visually Impaired Students: National Guidelines for Educational Excellence. Jack Hazekamp, M.Ed., and Kathleen M. Huebner, Ph.D., editors. Publications and Information Services Department, American Foundation for the Blind, 15 West 16th Street, New York, New York 10011. \$10.95, plus \$3.00 for shipping and handling.

The concerns of parents who want to know what they should expect from schools serving their blind and visually impaired children and school administrators and educators who must ensure that the unique needs of those children are being met are addressed in this book, which provides a comprehen-

sive overview of what educational programs need to do to serve blind and visually impaired students effectively.

This publication is based on guidelines previously developed for the California Department of Education by an advisory committee of parents, blind and visually impaired people, educators, administrators, ophthalmologists, and representatives of public and private education agencies and service organizations. The guidelines have been expanded to reflect national program service delivery models and federal legislation and regulations.

In addition to the guidelines, eight appendices provide useful information on resources, funding, legal requirements, low vision assessment, and the roles and responsibilities of educators and other professionals serving visually impaired children. An annotated reading list and glossary are provided.

The Week the World Heard Gallaudet. Jack R. Gannon, author. Gallaudet University Press, 800 Florida Avenue, N.E., Washington, D.C. 20002. Hardcover, \$29.95; softcover, \$14.95.

This book offers a detailed account of the Deaf President Now (DNP) movement which focused national attention on the rights of deaf people and which resulted in the university naming Dr. I. King Jordan as its first deaf president in its 125-year-history.

The book features interviews from such protest figures as Greg Hlibok, Student Body Government president; Elizabeth Ann Zinser, Gallaudet's seventh president for 2 days; Gary Olsen, executive director of the National Association of the Deaf; and many others. President Jordan and Congressman David Bonior, a Gallaudet board member, provide their personal insights. All photos in the book were taken by hearing impaired professional photographers.

Neuromuscular Stimulation: Basic Concepts and Clinical Implications. F. Clifford Rose, M.D., Rosemary Jones, Ph.D., and Gerta Vribova, M.D., authors. Demos Publications, 156 Fifth Avenue, Suite 1018, New York, New York 10010. 362 pages. Hardcover, \$69.95.

The recent emphasis on understanding the mechanisms that control muscle activity and the vital role that neural innervation plays in these interactions are discussed in this book with implications for the management of multiple sclerosis, spinal cord injury and a wide range of related disorders in which the neural control of muscle is disrupted.

This book provides a conceptual framework for the use of neuromuscular stimulation in rehabilitation, from developmental biology, biochemistry, histology, and neurophysiology.

A Job Trainer's Manual: Supported Employment for Low Functioning Rehabilitation Clients and Disabled Secondary Students. Kathleen C. Morris, author. Charles C. Thomas, Publisher, 2600 South First Street, Springfield, Illinois 62794-9265. 249 pages. Hardcover, \$44.75.

Written as a how-to-book for job trainers working with low functioning rehabilitation clients and/or special education clients, this manual provides practical information the job trainer needs to know when training clients in jobs. The methods described herein are used by the Transition to Work Project in Cincinnati, Ohio. The author discusses many different aspects of the trainer's job, including the relationship with employers and co-workers, as well as professionals and parents who are involved with the client. Chapters are devoted to *Perceptual Modalities, Client Analysis, Job Analysis, Job Match, Training on the Job, Working With Employers, Phasing Out of the Work Place, and Follow-up.*

Rehabilitation into Independent Living. 30th Anniversary Issue of Rehabilitation Gazette. Volume 29, Nos. 1 and 2. Gini Laurie, Joan L. Headley and Wm. Michael Mudrovic, editors. Gazette International Networking Institute, 4502 Maryland Avenue, St. Louis, Missouri 63108. 128 pages. Softcover, \$15.95.

Designed as a handbook for independent living specialists, rehabilitation professionals, respiratory therapists, ventilator users, and people with the late effects of polio and other disabilities, this publication presents a collection of life experiences of 40 people covering 35 years of rehabilitation into independent living — a total of 1,000 years of experiences. The writers recall and analyze the factors that contributed to their success: support systems — family, friends, attendants, and self-help networks; education and employment; equipment — commercial and adaptive; transportation; participation of vocational rehabilitation and other agencies; creation of disability rights; travel; and hobbies and recreation.

Strategies in Genetic Counseling, Volume 2: Tools for Professional Advancement. National Society of Genetic Counselors Series. Human Sciences Press. Nancy J. Zellers, M.S., editor. Human Sciences Press, Inc., Plenum Publishing Corporation, 233 Spring Street, New York, New York 10013. 239 pages. Hardcover, \$29.95.

The National Society of Genetic Counselors (NSGC), incorporated in 1978, is the professional Society for health care providers involved in the delivery of genetic counseling services to individuals and families. Continuing education of NSGC members is ongoing, both in regional meetings and in the annual education conference where issues of national significance are addressed. The society's Seventh Annual Education Conference held in October 1987 in San Diego, California, focused on strategies

for professional advancement, dealing with the need to increase expertise to expand and define new roles. Under this general topic, individual speakers discussed ethical dilemmas in genetic counseling and how to develop or enlarge roles with existing hospital ethics committees that already deal with these sensitive issues. This volume contains papers presented at the conference that describe individual research projects or areas of interest. Among the many titles are: *Medical Ethical Analysis: An Outline of a Particular Approach*; *Genetic Counseling for the Mildly Retarded Client: Three Case Reports*; and *AIDS: Impact and Implications for Genetic Counseling*.

A Cognitive-Behavioral Approach to Clients' Problems. Dr. Mike Scott, author. Routeledge, Chapman & Hall, 29 West 35th Street, New York, New York 10001. 269 pages. Softcover: \$19.95, U.S.; \$23.95, Canada.

The emergence of cognitive-behavior therapy during the past decade provides the promise of a valuable technique available to social workers in their attempts to successfully resolve the wide range of emotional and behavioral disorders and interpersonal difficulties which confront them. This volume describes and critically evaluates the cognitive-behavioral approach and its use in a wide range of client problems.

Managing Stress. David Fontana, author. Routeledge, Chapman & Hall, 29 West 35th Street, New York, New York 10001. 269 pages. Hardcover: \$25.00, U.S.; \$30.00, Canada. Softcover: \$10.95, U.S.; \$13.50, Canada.

Stress in professional life amongst social workers, teachers, managers, police officers, and others is a much discussed problem nowadays. Clearly, people under too much stress (or too little) do not work

at their best and may suffer symptoms such as poor concentration, backaches, sleeplessness, and a general feeling of hopelessness. In this book, the author demonstrates the importance of identifying exactly what stresses you, including both external factors in the environment and factors within yourself. He explains that by appropriate responses at both professional and personal levels you can maintain your optimal level of stress.

Disease Change and the Role of Medicine: The Navajo Experience.

Stephen J. Kunitz, author. University of California Press, 2120 Berkeley Way, Berkeley, California 94720, or 50 E. 42nd Street, R. 513, New York, New York 10017. 237 pages. Softcover, \$11.95.

Based on data accumulated during the author's long-term research on Navajo Indian epidemiology, this book describes the role Western medicine has played among the Navajo people and the need for its review, clarification and redefinition. This work raises crucial issues for public policy in the medical field, and should prove valuable for social scientists, physicians and health professionals concerned with the social context of public health and other medical facilities.

Geriatric Rehabilitation. Bryan Kemp, Ph.D., Kenneth Brummel-Smith, M.D., and Joseph W. Ramsdell, M.D., editors. College-Hill Press/Little, Brown and Company, 34 Beacon Street, Boston, Massachusetts 02108. 476 pages. Hardcover, \$45.00.

Historically, rehabilitation has focused on the young. It began with injured young workers and veterans. However, at that time life expectancy was only 50 to 55 years and what older disabled people there were did not receive a lot of attention. Today, things are different. The older population has swelled to about 12

percent of the population and is still going up; disability rates are very high, and over 30 percent of all health care expenditures are for services to older people. Rehabilitation offers one of the most viable alternatives to health care that can both improve functioning of disabled people and better spend existing dollars.

This book is organized into five parts. Part I provides an overview of some of the broad issues in rehabilitation. Part II focuses on current concepts of care for some of the most prevalent physical conditions affecting the elderly population. Part III, which is rightfully the longest, addresses a number of ways in which functioning can be improved. These chapters range from developments in technology to assisting families. Part IV focuses on the issue of how rehabilitation oriented services can be organized in a variety of different settings, from the private office to the rehabilitation hospital. Part V looks at special issues in rehabilitation, including ethics and policy concerns.

Occupational Therapy and Activities Health: Toward Health Through Activities. Simme Cynkin and Anne Mazur Robinson, authors. College-Hill Press/Little, Brown and Company, 34 Beacon Street, Boston, Massachusetts 02108. 304 pages. Hardcover, \$32.50.

The preface to a previous book of the same title ended with a challenge to the reader: "Your testing and attempts at validation will be the addendum to this book, whether they come in the guise of an article in a learned journal, a dissertation, an independent study, a paper read at a conference or, best of all, excellent service to the patient/client . . ." Some 10 years later, questions, suggestions, reactions, and actions of students, educators and practitioners alike have contributed to an addendum that has almost outstripped the original in expansion of ideas. Hence this successor.

Program Issues in Developmental Disabilities: A Guide to Effective Habilitation and Active Treatment. Second Edition. James F. Gardner and Michael S. Chapman, authors. Paul H. Brookes Publishing Company, P.O. Box 10624, Baltimore, Maryland 21285-0624. 255 pages. Softcover, \$25.00.

This second edition is intended to assist facilities in the design of habilitation programs to meet the Health Care Financing Administration's (U.S. Department of Health and Human Services) intermediate care facilities for the mentally retarded (ICF/MR) regulation. The authors designed this guide for personnel responsible for effective habilitation and active treatment and offer specific and concrete suggestions for the design and implementation of active treatment programs that meet the requirements for effective habilitation.

Limb Prosthetics. 6th Edition. A. Bennet Wilson, Jr., author. Demos Publications, 156 Fifth Avenue, Suite 1018, New York, New York 10010. 122 pages. Softcover, \$18.95, plus \$3.00 postage and handling.

This publication is intended to serve as an introduction to prosthetics for students and practitioners of occupational and physical therapy and for residents and practitioners in physical medicine and rehabilitation and orthopedic surgery. Following a brief history of limb prosthetics, the book discusses amputation surgery, the early postsurgical period and fitting of the prosthesis, and specific types of prosthesis. The original version of this book was first published as "Limb Prosthetics Today" in a 1963 issue of *Artificial Limbs*. Requests for reprints and permission for reprinting encouraged its updating, first as a journal article and later as a book.

REPORT RESOURCES

PUBLICATIONS CATALOG, 1989-90. Publications Department, American Foundation for the Blind, 15 West 16th Street, New York, New York 10011. Available in print and cassette. No charge.

Whether it's improving access to recreation and leisure activities or providing a comprehensive listing of services for blind and visually impaired people, this catalog features a variety of titles dealing with all nonmedical aspects of visual impairment and blindness.

It lists 95 textbooks, periodicals, guides, manuals, research papers, and general information publications that are of interest to blind and visually impaired people, their families and friends, parents, educators, rehabilitation specialists and other professionals who work with visually impaired people of all ages. Many of the publications are available in large-print, braille and on cassette.

A READER'S/WRITER'S GUIDE TO PERIODICALS IN THE DISABILITY FIELD. Third edition. Professor J. L. Baird, Chairman, the Committee to Promote Writing in Disability Studies, English Department, Kent State University, Kent, Ohio 44242. \$10.00, individuals; \$15.00, institutions.

An exhaustive listing of the magazines in the field, this guide is aimed primarily at the writer, since it furnishes information on topics of current interest to the magazines, length of time for response, amount paid per article, etc. But, clearly, it will also be of interest to those who wish simply to become acquainted with the journals in the field. The guide is also provided with a bibliography which lists articles of high quality in various areas of the discipline.

SUBSIDY PROGRAMS FOR ASSISTIVE DEVICES and CONSUMER NEEDS ASSESSMENT: A QUALITATIVE STUDY OF THE NEEDS OF PEOPLE WITH DISABILITIES. The Electronic Industries Foundation Rehabilitation Engineering Center. A limited number of copies are available free of charge. Address copy requests to Nancy Buecker, Librarian, Electronic Industries Foundation, 1901 Pennsylvania Avenue, NW, Suite 700, Washington, DC 20006.

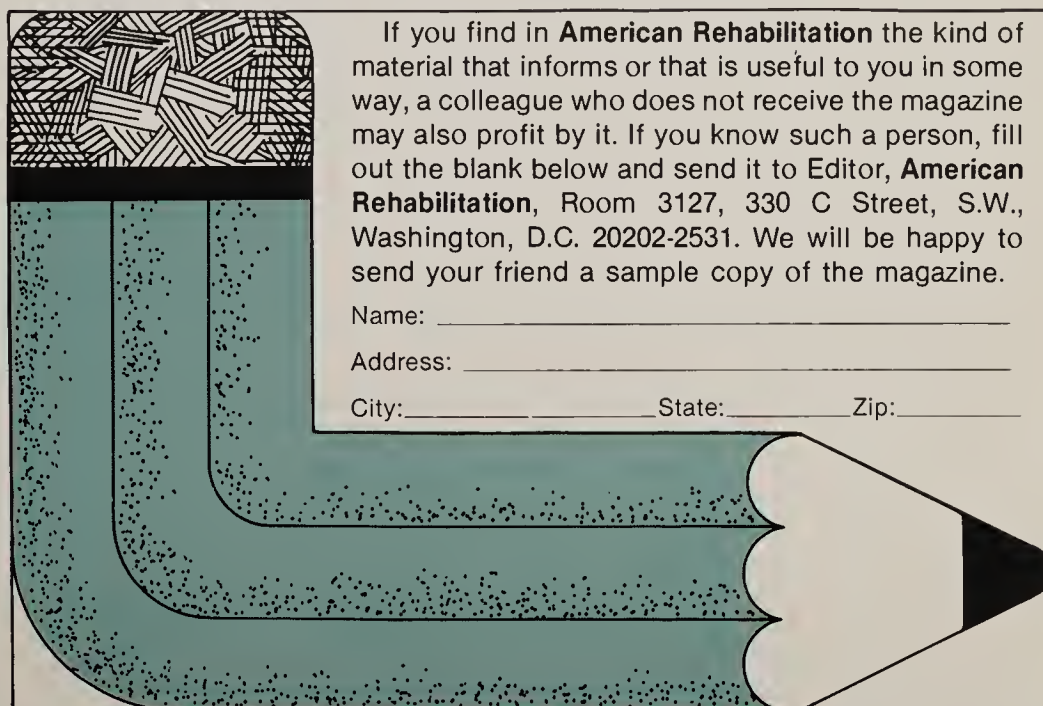
Written for service providers, program planners, assistive device companies, government agencies, and disabled consumers, **SUBSIDY PROGRAMS FOR ASSISTIVE DEVICES** examines the loan guarantee of the "assistive financing" concept as applied to markets for products designed for people with disabilities. The paper introduces and analyzes a number of model programs that are pioneering the use of subsidies for finan-

cing the purchase of assistive devices.

Written for those planning research or service relating to assistive technology development and distribution, **CONSUMER NEEDS ASSESSMENT** describes the results of 12 focus groups convened to study the perceived technology needs of people with visual and motor impairments.

LARGE PRINT CONSUMER PUBLICATIONS CATALOG. Published jointly by the American Foundation for the Blind and the Museum of American Folk Art. Available from the Publications Department, American Foundation for the Blind, 15 West 16th Street, New York, New York 10011. No charge.

Whether it's making a home a safe and comfortable place for someone who has experienced vision loss or providing a comprehensive listing of services for blind and visually impaired people, this catalog offers a variety of titles of interest to blind and visually impaired people, their families and friends.



If you find in **American Rehabilitation** the kind of material that informs or that is useful to you in some way, a colleague who does not receive the magazine may also profit by it. If you know such a person, fill out the blank below and send it to Editor, **American Rehabilitation**, Room 3127, 330 C Street, S.W., Washington, D.C. 20202-2531. We will be happy to send your friend a sample copy of the magazine.

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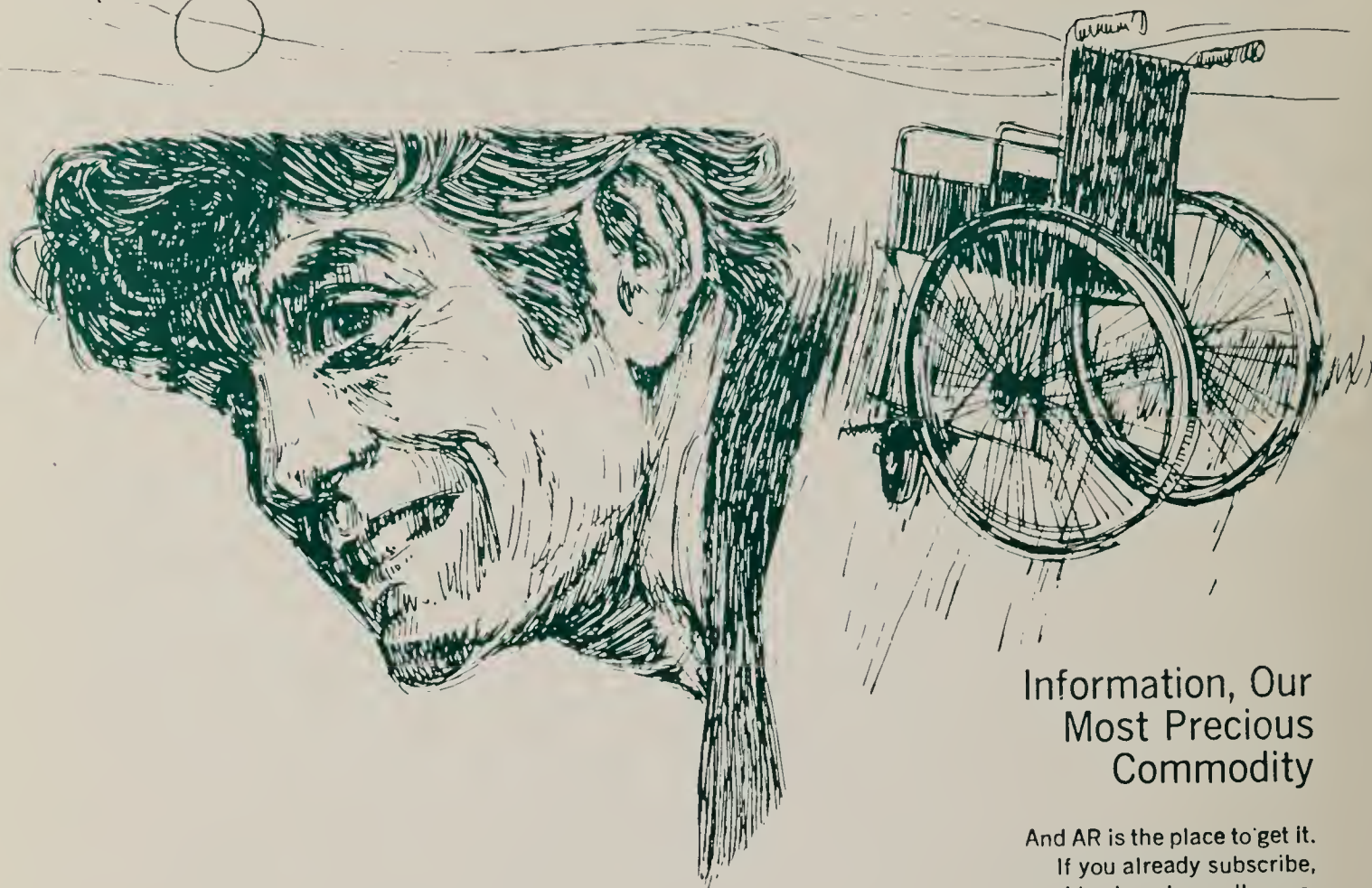
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AMERICAN REHABILITATION



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Technology

Research Applications

Achieving Excellence in Rehabilitation Education

Nell C. Carney, Commissioner
Rehabilitation Services Administration

Vocational rehabilitation, as many of you know from personal experience, is a labor intensive, human service interaction. The work of the rehabilitation counselor and the entire rehabilitation team is central to the success of the disabled individual — as that individual is freed from the bonds of dependency and moves towards and achieves employment, independence and full integration into the community.

The infrastructure that carries the weight of the state-federal vocational rehabilitation program is dependent to a large degree upon the authorities in the Rehabilitation Act that provide for the recruitment, selection, education and training, and placement of a sufficient number of qualified rehabilitation personnel.

The great social planners, who in 1954 recognized the need for specially prepared rehabilitation personnel, gave us a multi-faceted training and education program with sufficient flexibility to accommodate pressing and everchanging needs for a wide variety of professional and technically oriented administrators and direct service providers. Section 304 of the Rehabilitation Act authorizes the RSA Commissioner to make grants and let contracts with states and public and non-profit agencies and organizations for the purpose of increasing the numbers of personnel trained to provide vocational, medical, social, and psychological rehabilitation services to people with disabilities.



RSA's Rehabilitation Training Program is designed to increase the supply of *newly trained qualified personnel and to maintain and upgrade basic skills and knowledge of personnel employed as providers of rehabilitation services.*

We are now facing an everexpanding crisis concerning the shortage of qualified rehabilitation practitioners, administrators, educators, and researchers. This situation has been amply documented by various studies and in the testimony in the 1988 Bi-Regional Training Forums. On an ongoing basis, our Regional Offices receive calls from universities and from providers of rehabilitation services seeking qualified people to fill vacancies —

especially because those pioneers in rehabilitation who entered the program in the 1950's and 1960's are now retiring at an accelerating rate. Our site visits to rehabilitation counseling programs indicate that in some regions there is an increasing number of "secondary workers" and retirees entering advanced degree programs. The student profiles do not resemble the profiles of the 1960's and 1970's. We lack sizable numbers of minority students in the program who could assist state agencies in effectively working with clients from various cultures. Bilingual students are minimal in all of the rehabilitation disciplines we support with RSA funds. These shortages will undoubtedly surface again when we complete the RSA Training Needs Assessment initiative currently under way across the country. The shortages being experienced by many medical, educational and engineering disciplines are now beginning to affect the provision of services in the field of rehabilitation. With the decreasing total number of available workers in the labor market, the challenge escalates.

With the assistance of the staff at the University of Oklahoma, the Regional Continuing Education Programs, and the state vocational rehabilitation agencies, last December we embarked on a nationwide effort to ensure that the state vocational rehabilitation agencies effectively manage and
(Continued on page 26.)

AMERICAN REHABILITATION

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COVER PHOTO: Supporters of the Americans with Disabilities Act (ADA) assemble in front of the White House for the ADA March to the Capitol on March 12.

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Physical Disability and Technology Needs

a preliminary study in response to federal mandate

Howard P. Parette, Jr., Ed.D.
Alan VanBiervliet, Ph.D.

In order to investigate the technology needs of people with physical disabilities in the State of Arkansas, data obtained from a sub-sample of 981 respondents from a larger study was selected and examined. Unmet needs were identified in all areas of life functioning, with particular emphasis being placed on inaccessibility of transportation, lack of credit options for purchasing needed technology and inability to try out technology before purchasing it. The funding mechanism most often used for technology was Medicare and Medicaid, while the least often employed was the public school systems. Even in light of the limitations of the study in terms of generalization of findings, it represents one of the first attempts to systematically investigate the technology needs of people with physical disabilities.

As readers of *American Rehabilitation* are aware, people with physical disabilities are an extremely heterogeneous population, exhibiting a diverse range of needs to be met in order for them to become more fully functioning and contributing members of society.^{1,2} These needs have presented tremendous challenges to those involved in service delivery to people with disabilities, and have resulted in greater attention being focused on technology and its applications to this population. In recent years, the word has spread that all people, particularly those with physical disabilities, can benefit from technology.³ Not only does technology provide important tools that facilitate the performance of tasks, but it is often a necessity that promotes necessary interactions within the mainstream of everyday life.^{4,5}

It is indisputable that with the increased independence evolving from the utiliza-

tion of available technology among people with physical disabilities, benefits via reduced costs to society, to people with disabilities and to the families necessarily ensue.^{3,6} Such benefits include a reduction in the expenditures associated with early intervention, education, rehabilitation, health care, transportation, telecommunication, and other services needed by people with physical disabilities.

Federal Technology Legislation

With the passage of Public Law 100-407, *The Technology-Related Assistance for Individuals with Disabilities Act of 1988*, the federal government echoed its recognition that all people with

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disabilities can benefit from technology. Prior to the enactment of this monumental legislation, there seemed to be a consensus across the country that people with disabilities did not have access to information regarding potentially useful technology, advice on the appropriate selection of assistive devices, or training in the use of assistive devices once they were obtained.⁷ A related problem was that existing service delivery systems which were designed to assist people with disabilities to identify, acquire and use assistive technology were incomplete and fragmented in design. Hence, this suggested that the provision of better access to technology is contingent upon an enhanced capacity to provide services designed to support people with disabilities in the use of their technology.

The recent technology legislation is especially important since it reflects a major advancement in the development of necessary support services for people with disabilities. In a general sense, the federal government has authorized grants to states to develop comprehensive statewide service delivery programs for assistive technology. During the first funding cycle in fiscal year 1989, the Office of Special Education and Rehabilitative Services funded 9 initial grants, with an additional 13 grants being funded in April 1990. The specific purposes of the state grants program as delineated under sec-

tion 345.2 of the regulations are “to create and support comprehensive, consumer-responsive, statewide programs of technology-related assistance designed to increase —

(a) Awareness of the needs of individuals with disabilities for assistive technology devices and assistive technology services;

(b) Awareness of policies, practices, and procedures that facilitate or impede the availability or provision of assistive technology devices and assistive technology services;

(c) The availability of and funding for the provision of assistive technology devices and assistive technology services for individuals with disabilities;

(d) Awareness and knowledge of the efficacy of assistive technology devices and assistive technology services among individuals with disabilities, their families or representatives, individuals who work for public agencies, and private entities that have contact with individuals with disabilities (including insurers, employers, and other appropriate individuals);

(e) The capacity of public and private entities to provide technology-related assistance, particularly assistive technology devices and assistive technology services, and to pay for the provision of assistive technology devices and assistive technology services;

(f) Coordination among State agencies and public and private entities that provide technology-related assistance, particularly assistive technology devices and assistive technology services; and

(g) The probability that individuals of all ages with disabilities will, to the extent appropriate, be able to secure and maintain possession of assistive technology devices as they make the transition between services offered by human service agencies or between settings of daily living.”⁸

To address the aforementioned parameters of the legislation, states applying for grants under the legislation must

conduct a preliminary assessment of the needs of people with disabilities across all groups — including the underserved —

the geographic regions of the state for assistive technology services, devices and support. Similarly, a description of the



Burton Pusch uses lighting systems that incorporate touch sensitive switches.

nature of both state and private sector involvement in the provision of technology and related services as well as the continuing role in the provision of such services is required in the grant application.

Technology Access for Arkansans

In the Spring of 1988, prior to the passage of Public Law 100-407, a cooperative effort to find solutions to problems that Arkansans with developmental disabilities experience was initiated. The resulting project, the Technology Access for Arkansans (TAARK) project was planned by seven public, private and consumer agencies to:

- Identify the need and quality of technology provisions in Arkansas;
- Disseminate information about the appropriate technology and funding;
- Educate Arkansans about technology and funding;
- Educate Arkansans about technology and advocacy;
- Develop a coordinated state plan; and
- Provide technical assistance to the Governor's Developmental Disabilities Planning Council (DDPC).

The project was funded in part through the DDPC and in part through the University of Arkansas-University Affiliated Program. However, soon after this project was funded at the state level, the federal technology legislation was enacted providing the impetus for bi-level planning activity to develop: (a) a broad state plan addressing the technology needs of people with disabilities; and (b) a response to the opportunity for federal assistance in developing a model plan for technology provision to people with disabilities via grant application processes.

This study reports on a subcomponent of a study used for state planning efforts evolving from the TAARK project wherein the grant application processes of Public Law 100-407 were addressed. The report focuses specifically on the assessment of needs of people with physical



Burton Pusch uses simple technologies for daily living activities. Here, a hand held vacuum cleaner has been modified with an extension handle.

disabilities who are potential consumers of technology, with implications of the findings presented for future planners of technology service delivery systems.

Method

In January 1989, a Coordinated Planning Committee of 17 people representing a cadre of state, private and consumer organizations in Arkansas met and discussed components of Public Law 100-407. Given that little information appeared to exist relating to the technology needs of people with disabilities, a decision was made to conduct a statewide survey of consumers with disabilities to gain information for planning efforts. A Consumer Needs Study Group was organized to draft a document designed to assess the technology-related needs of people with disabilities. The resulting instrument was subjected to a series of reviews and modifications by the entire Coordinated Planning Committee which, by May of 1989, had grown to a constituency of 48 people, including people with disabilities, family members, vendors of technology, and representatives of 25 different public and private organizations.

Consumer Survey

Each participating member of the Central Planning Committee was requested to provide a mailing list of people with disabilities and/or consumers. Groups providing mailing lists included Advocacy Services, Arkansas Association for the Hearing Impaired, Arkansas Easter Seal Society, Central Arkansas Area Agency on Aging, Coalition for the Handicapped, Department of Human Services (DHS), Developmental Disabilities Services, DHS Division of Rehabilitation Services, DHS Division of Services for the Blind, and Mainstream Living Center, which is an independent living center funded through Title VII Part B. Some 10,000 mailing labels were submitted for use in the consumer survey, constituting a sample of a wide range of consumers, including peo-

ple with mental retardation, hearing impairments and multihandicaps. To address the elderly population of the state — a significant component of the Arkansas population base⁹ — contact was made with publication headquarters for *Arkansas Aging*, a periodical of the DHS Division of Aging and Adult Services and the Arkansas Association of Area Agencies on Aging, and consent was obtained to reproduce the Consumer Survey instrument in its newspaper. This publication has a circulation of approximately 35,000

In recent years, the word has spread that all people, particularly those with physical disabilities, can benefit from technology.

in Arkansas. Consent was also obtained to reproduce the Consumer Survey in *ARC News*, a monthly newsletter disseminated by the Association for Retarded Citizens/Arkansas with a circulation of around 4,000. These three sources resulted in the potential to reach some 49,000 Arkansans.

Return envelopes were included in the mailing of 10,000 survey instruments, though no return envelopes were included in the published versions of the survey in the aforementioned newsletters. It was recognized from the outset that this strategy would significantly affect return rates from the readership of these newsletters, yet project budgetary constraints prohibited the use of return envelopes with such a volume of mailouts. Surveys were mailed during the first week of April 1989. To insure that the elderly sector of the state was adequately represented in the survey, a second mailing, using return envelopes, to six Area Agencies on Aging was conducted in June of the same year. This procedure was warranted, given the poor response rate which often is associated with survey procedures wherein return envelopes are not provided.

Inter-Data Entry Reliability

Data from returns were entered on computer by two project staff personnel and two work study employees who assisted in the data entry phase of the project. All records were entered on a PANORAMA¹⁰ database in which a formatted screen for each section of each survey instrument was visible to data entry personnel. All data were combined into a single data base. Data entry reliability was determined by examining a random sample of 10 percent of the returned con-

sumer and professional survey forms and comparing actual data entered to that exhibited on the survey forms. Since data were entered in a visible screen section, or window, relating to the actual survey instrument, an error rate ranging from 0 to 5 percent for various sections, or windows, was demonstrated and was deemed to be acceptable for analysis purposes.

Consumer Survey Results

A total of 2,201 consumer survey forms were received by August 10, 1989. This reflects a return rate of around 20 percent of the survey forms mailed with return envelopes. Of this group, 981 surveys, or 46 percent of the total respondent class, were completed by people with physical disabilities. Surveys which were disseminated via the mechanism of *Aging Arkansas* and *ARC News* were not included in data analysis due to the poor response rate that resulted because return envelopes were not provided.

The results of the survey of people with physical disabilities are reported in Tables 1 and 2. Examination of the survey responses shows that all counties in the state were represented and that the return rates from these counties typically mir-

rored population densities of these counties. Also, all age groups were represented among the survey respondents (range = 0-99 years; mean = 37 years). Self-reports of concomitant disability category by participants with physical disabilities in the survey included the following: visual problems, 37 percent; learning problems, 38

percent; speech problems, 35 percent; mental retardation, 31 percent; hearing problems, 21 percent; heart problems, 16 percent; breathing problems, 15 percent; emotional problems, 13 percent; head injury, 8 percent; and other, 21 percent.

Table 1 reports levels of satisfaction experienced by consumer survey

respondents with physical disabilities. A majority of respondents (71 percent) reported that they participated in an assessment or evaluation prior to obtaining their assistive devices/services. Similarly, a large number of respondents (68 percent) also reported that they were satisfied with the services they received for

Table 1

Reports of Satisfaction with Technology Services Provided to Consumer Survey Respondents with Physical Disabilities (n = 981)

Question	Yes	Percentage	Number	Percentage
Were you given an evaluation before getting your assistive device?	693	71	141	14
Are you satisfied with the services you receive for assistive devices you use?	663	68	150	15
Did you have the opportunity to buy assistive devices/services on a "buy-on-time," or credit plan?	194	20	571	58
If not, would a "buy-on-time," or credit plan help?	365	37	245	25
Have you received enough training in the use and care of your assistive device?	540	55	178	18
Were you able to try out the device before paying for it?	368	38	307	31
Are you satisfied with the time it takes to repair/service your device?	432	44	185	19
If employed, did your employer change your work area or equipment to meet your needs?	56	6	143	16
Do you need more information about assistive devices/services that could help you?	567	58	289	30
Are transportation services being provided to you?	337	34	584	60

their assistive devices. However, 58 percent reported that they needed more information regarding assistive devices/services. This need for information was supported by the high number of unmet needs reported in all categories of assistive devices/services (see Table 2).

In the area of equipment purchasing practices, it is noted in Table 1 that only 20 percent of the respondents expressed having had the opportunity to purchase assistive devices on a "buy-on-time," or credit plan, and 58 percent reported that such a plan would be helpful in purchasing needed devices. A considerable number of respondents (18 percent) reported that they did not receive adequate training in the use of their devices, while 31 percent reported that they did not have an opportunity to try these devices before being required to pay for them. A moderate number of respondents (19 percent) expressed dissatisfaction with the length of time required for servicing when their devices were in need of repair. Interestingly, of the 418 respondents who appeared to be employed, a substantial number (34 percent) indicated that *no* attempt was made by their employers to adapt the environment to make the workplace more accessible.

Areas of Technology Usage and Unmet Needs

Technology usage was reported in all areas of life functioning by the consumer respondents with physical disabilities. As noted in Table 2, the areas in which technology was most often used as reported by the respondents was *getting around*, 57 percent; *self-help*, 37 percent; *building accessibility*, 25 percent; *taking care of the home*, 24 percent; and *artificial limbs, braces and prostheses*, 23 percent. Unmet needs were also reported in all areas of life functioning. In some of these unmet needs categories — *work and work training, school training, using a telephone, talking with others, reading, writing and typing, recreation, hearing*

aids and other devices, using a computer, building accessibility, and specialized cars, vans, and buses — consumers reported unmet needs more often than usage. In the area of building accessibility, equivalent levels of use and unmet needs were reported by the respondents.

Expenditures for Assistive Technology

Consumers were asked to report their expenditures for devices, services and/or maintenance. A majority of respondents (29 percent) reported expending less than \$100 for technology devices and services in 1988. Expenditures of between \$100 and \$500 were reported by 14 percent of the respondents. Larger expenditures for technology were reported less frequently, with 8 percent indicating personal costs of \$501 to \$1,000, 9 percent noting costs of \$1001 to \$5,000, and only 3 percent reporting expenditures greater than \$5,000. Almost one-fourth of the participants (23 percent) in the survey reported lack of knowledge of the cost of their assistive technology in 1988.

Funding Sources

Funding sources for assistive devices/services which were reported for those respondents with physical disabilities in the survey included a wide range of mechanisms, though several funding sources appeared to be used more often. The largest funding sources for assistive devices/services reported were Medicare/Medicaid, 50 percent; the consumer and/or their family, 35 percent; DHS Division of Rehabilitation Services, 21 percent; DHS Division of Services for the Blind, 17 percent; and Area Agency on Aging, 13 percent. Interestingly, only 3 percent of the respondents reported having their assistive technology funded through the public school systems.

Travel Practices

In the area of travel practices demonstrated by consumers, 24 percent of the 899 people with physical disabilities

who responded to this survey item reported that no travel was involved in receiving assistive devices/services. Another group of respondents (29 percent) indicated traveling only 1 to 20 miles to receive their assistive devices/services. Another 13 percent reported they had to travel 21 to 50 miles to receive such services. A large number of respondents (35 percent) reported having to travel over 50 miles to receive assistive devices/services.

Discussion

In examining the reports of satisfaction with technology services provided to consumers, several interesting trends appear to emerge (see Table 1). First, there are levels of dissatisfaction in *all* surveyed categories of life functioning reported by consumers. The area in which services appeared to be the most deficient was that of transportation, as 60 percent of the consumer respondents with physical disabilities reported not having such services provided to them. It is a recognized fact that transportation services available to people with disabilities are, for the most part, inadequate.¹¹ To receive appropriate education, medical care, vocational training, employment, and other types of services, people with disabilities must leave their residences and travel to other facilities. Characteristically, mass transportation systems have yet to incorporate modern technologies into the design of these systems to assure total access to people with disabilities, due in part to attitudes toward people with disabilities as well as lack of awareness of technology or cost factors involved in modifying transportation systems. Given that 71 percent of the respondents indicated having an evaluation prior to receipt of their assistive technology, it must be speculated that either transportation is being provided by family members to the sites where evaluations are conducted or the evaluations are conducted in the homes by service providers via such modes as outreach teams. Conversely, many consumers may

be using public transportation such as that provided through P.L. 88-365, the Urban Mass Transportation Act of 1964,¹² and not perceive this transportation modality as a service. Transportation, admittedly,

is a crucial service for people with physical disabilities, particularly in states that have a rural nature, such as Arkansas, where there is a tendency to centralize resources in the larger metropolitan areas. Without

transportation to services which are geographically centralized, consumers may be systematically denied necessary technology and related services that can enhance the quality of their lives.⁴

Table 2

Areas of Assistive Devices/Services Used and Areas of Unmet Needs as Reported by Consumer Survey Respondents with Physical Disabilities (n = 981)

Area	Number of Use	Percentage	Number of Unmet Need	Percentage
Self-Help	361	37	176	18
Taking Care of Home	239	24	184	19
Work and Work Training	136	14	164	17
School Training	147	15	158	16
Getting Around	556	57	127	13
Specialized Seating	195	20	147	15
Using a Telephone	157	16	168	17
Talking with Others	129	13	188	19
Reading, Writing and Typing	145	15	200	20
Recreation	184	19	230	24
Things That Help You See	201	21	143	15
Hearing Aids and Other Hearing Devices	84	9	142	15
Using a Computer	85	9	233	24
Building Accessibility	240	25	242	25
Artificial Limbs, Braces and Prostheses	222	23	109	11
Specialized Cars, Vans and Buses	200	20	240	25

This lack of transportation services reported by a majority of disabled respondents is interesting in light of responses pertaining to satisfaction with technologies received. A majority (68 percent) voiced satisfaction with their technology and related services, and yet 58 percent of the total respondent group wanted *more information* about technology which could help them. At the very least, this is suggestive that concerns are present regarding existing technologies used by respondents. Consumers are either more unsatisfied than they have reported or they feel that there may be something better available. In any event, a real need exists for greater dissemination of information within the system and for an enhanced transportation component to provide services to people with physical disabilities.

Also, there appears to be a real need to develop more creative alternatives for purchasing technology by the consumers in this study. More than one-half (58 percent) of the total respondents reported not having had the opportunity to buy their technology on some type of credit or time payment program. Of those who reported not having had such an opportunity, 37 percent expressed that time payment plans would have been helpful. Credit-based funding systems have been acknowledged as being important components of any technology service delivery system.^{3,13} Subsequent to the recommendation made by the Office of Technology Assessment,³ numerous strategies at varying levels have been demonstrated to address the needs of disabled people for credit-based funding systems. Examples at the state level include the direct loan model established under the New York State Equipment Loan Fund for the Disabled and California's Handicapped Transportation and Supported Employment Loan Guarantee Programs.¹³ At the private sector and nonprofit agency level, alternatives are being developed across the country, each with the conceptual under-

pinning that with adequate planning, people with disabilities are good risks for loans and credit purchases.

Coinciding with the aforementioned finding was the report that 38 percent of the total consumer respondents were unable to try out their technology before paying for it. It is an axiom among non-disabled consumers that, prior to purchase of technology in our society, vendors allow the consumer access to the technology to inspect it and to ascertain

design of educational plans for children whose needs warrant such technology. However, for this sample of people with physical disabilities, only 3 percent reported that their technologies were funded through the public schools. In view of the tremendous problems currently faced by the entire system created under these laws, and in light of looming threats to the integrity of these programs,¹³ it is difficult to assume that assistive technology will demand a great deal of at-

More than one-half (58 percent) of the total respondents reported not having had the opportunity to buy their technology on some type of credit or time payment program.

whether the technology meets the consumer's needs. Unfortunately, people with physical disabilities are more often than not denied such access and must rely on the judgments of the professionals involved in selecting the technologies for them. In view of the current practice of requiring full payment before an assistive device is ordered, it is important that consumers are able to try out a particular technology before they or funding agencies make a financial investment in it.¹⁴ Many times, technologies are selected primarily because they are familiar to the professional, or because a conflict of interests exists (e.g., the professional is a consultant for a company/vendor of the technology). In other instances, technologies may be selected solely due to fiscal considerations. In either case, inappropriate technologies may be acquired for the person with a disability.^{3, 14, 15}

Given the significant role which public schools have in the lives of children with disabilities, it would be expected that many technologies would be funded through the mechanisms of P.L. 94-142 or its sister legislation, P.L. 99-457. Both laws contain language which implicates the provision of assistive technology in the

attention from administrators and most practitioners for some years to come. Regardless of this somewhat bleak observation, progress is being made across the country on the utilization of technology in planning processes and direct service provision to students with disabilities. Computerized Individualized Education Plan programs are now available and are being subsidized with state appropriations. Similarly, school systems are attempting to incorporate assistive technology into initial procurements early on in the educational careers of students to minimize add-on costs. Finally, school systems are beginning to explore the possibilities of multi-student use of technology, thereby lowering their costs.

It is also interesting to note that the percentage of people with physical disabilities reporting unmet needs in the area of computer usage (25 percent) was almost three times that of reported usage (9 percent) by those responding to this item (see Table 2). Given the impetus toward use of computers in educational and rehabilitation environments nationwide, it appears that utilization of this technology remains far from adequate to

meet the needs of this particular sample of people with physical disabilities. The technology exists which can enable even those with the most serious physical disabilities to manipulate computer keyboards in ways that they would not normally be able to.^{16, 17}

Before inferences can be made regarding this data, the limitations of this preliminary investigation of the technology needs of people with physical disabilities and the professionals who


service provision to people with disabilities were not included. For example, the Veterans Administration, which is a primary service mechanism for veterans with disabilities, was not included. Similarly, only a small number of nurses and physicians were included in the survey, limiting the input from the medical community.

However, despite these limitations, it is recognized that this is the first attempt demonstrated in the State of Arkansas to

The technology exists which can enable even those with the most serious physical disabilities to manipulate computer keyboards in ways that they would not normally be able to.

serve them must be considered. Even though a reasonable response rate was obtained from consumers, only a small sample of the total population of people with disabilities was surveyed from across the state. A recent study has reported that more than 300,000 people with disabilities may exist in Arkansas. The consumers surveyed represent the clientele of a limited cross section of agencies known to be involved in service provision to people with disabilities. Even though the data suggest that many types of disability categories were reflected in the survey, comparable representation across disability categories was not demonstrated. For example, a large percentage of the consumer respondents (46 percent) reported having a physical handicap while people with head injuries, breathing problems, emotional problems, and heart problems constituted a much smaller proportion of the total respondent class. Similarly, equal representation across agencies which are involved in technology service provision was not reflected by the professional survey respondents.

Even though 21 different agencies and groups were included in the survey, other groups which are involved in technology

comprehensively identify the technology needs of people having disabilities; and it is also the *only* report known in the professional literature to date which addresses the issues herein discussed. These considerations alone suggest the importance of the findings for those involved in planning for the technology needs of people with disabilities, particularly for those who are planning to respond to P.L. 100-407. 

Project TAARK is funded in part by Grant Number 89-554 from the Arkansas Governor's Developmental Disabilities Planning Council, by the University of Arkansas at Little Rock, and by Grant Number 06DD-0405/02 from the University of Arkansas-University Affiliated Program in Developmental Disabilities.

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13) Mendelsohn, S. *Payment issues and options in the utilization of assistive* (Continued on page 27.)

Service, Resource and Training Needs of American Indian Vocational Rehabilitation Projects

Georgia L. Lonetree

This study was conducted to identify the training and technical assistance needs of 17 American Indian vocational rehabilitation projects. Two survey instruments were developed to assess what types and levels of training would be needed to enhance staff development and promote successful rehabilitation of American Indians with disabilities. One survey was developed for project director/coordinator response and the other was developed for support staff response. Geographic locations, tribal representation and cultural demographics were greatly considered since varied rehabilitation services are offered by each project. Obtaining data from each project gives an all-inclusive view of the service, resource and training needs of the projects.

The United States grants federal recognition to 309 American Indian tribes and 197 tribal villages in Alaska (*Federal Register*, 1986). The 1980 U.S. Bureau of Census reported a population of 1.4 million American Indians. This compares with a population of 827,268 in 1970, and 551,669 in 1960. The American Indian population has nearly tripled in the 20 years from 1960 to 1980 (U.S. Congress, Office of Technology Assessment, 1986). A recent BIA report (1989), titled *Indian Service Population and Labor Force Estimates*, lists the on or near reservation population at 949,075. The 1989 BIA report does not include the tribal members who are located in communities or urban areas outside reservations.

American Indians With Disabilities

American Indians, as a group, have

disabling conditions at a disproportionately high rate. The 1980 U.S. Census data indicates a rate of work-related disability for American Indians at about one and one-half times that of the general population and at a higher rate than any other minority group (U.S. Bureau of Census, 1983). An analysis of national Rehabilitation Services Administration (RSA) data shows that the rate at which the state-federal rehabilitation system provided services to American Indians was substantially lower than for the U.S. population as a whole (Morgan & O'Connell, 1985).

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Efforts to Improve Vocational Rehabilitation Services

In recent years, there have been concerted strategies by RSA to establish and improve vocational rehabilitation services to American Indians living on or near reservations. The 1986 reauthorization of the Rehabilitation Act authorized the continued funding of vocational rehabilitation service grants to the "governing bodies of Indian tribes located on Federal and State reservations (and consortia of such governing bodies) to pay 90 percent of the costs of vocational rehabilitation services for handicapped American Indians residing on such reservations." (Sec. 130 (a)).

White (1987) previously reported mixed reactions by state VR administrators toward improving/expanding VR services to American Indians with disabilities. One-fourth of the respondents saw the special project funding as an opportunity to improve VR services to American Indians. The remaining three-fourths were not supportive of the separate funding and were reserving judgment until interpretations of the state VR role and responsibility were clarified.

Less than one-fifth of those surveyed responded that improving VR services for American Indians was a high priority.

Sixty-six percent of the administrators reported that the best strategy for improving services was to build VR services for Indians within existing state structures. This compares to 9 percent who responded that the best strategy was to help tribes secure funding for creating tribally-administered programs. Sixty-one percent of the state VR administrators reported that they did not have any existing

the hiring of a Native American Coordinator to work closely with Pueblo tribal leadership through local bilingual rehabilitation technicians to provide peer counseling services.

With the passage of legislation to improve service delivery to American Indians with disabilities, new American Indian vocational rehabilitation projects (Section 130) have been developed. Many

technical assistance needs provides a comprehensive view of what rehabilitation services exist for American Indians who are disabled. Two survey instruments were developed for this study. One survey instrument, Project Profile, was developed for project director responses and another survey, Project Staff Profile, was developed for support staff responses to identify what type of training and technical assistance would be needed to implement the project objectives of the American Indian VR Projects. Both closed and open-ended formats were used as response choices. A modified Likert scale with five response choices from "essential" to "not important" was used for the training and technical assistance needs section of the survey.

A research project committee was formed to review, critique, add, delete, and recommend changes to the survey drafts prior to conducting the pilot survey. Upon approval of the drafted survey forms, copies of the surveys were mailed to the three veteran projects to pilot the study. Followup on the pilot responses caused delays in meeting timeliness and required numerous phone calls which ultimately resulted in an 85 percent return rate.

A different approach was initiated for the remaining 14 projects. Appointments were scheduled to conduct telephone interviews to gather data. Each project received the appropriate number of survey forms for each staff person to complete prior to the telephone interviews. This method resulted in a 100 percent response rate from all project personnel.

The responses of project directors and staff were analyzed separately by total responses, responses by federal regions and responses by length of each project's existence. Data was entered in the Macintosh SE StatView Graphics program for statistical analyses. There were 161 variables analyzed for the *Project Profile* and 74 variables for the *Project Staff Pro-*

In recent years, there have been concerted strategies by RSA to establish and improve vocational rehabilitation services to American Indians living on or near reservations.

policies/initiatives specifically targeted to meeting the needs of the Indians.

Two state VR agencies that have initiated unique services to American Indians are Arizona and New Mexico. The Arizona Rehabilitative Services Administration has been involved in the development of service delivery systems to American Indians since 1963 through an RSA-funded Research and Demonstration Project which was located on the campus of Arizona State College (presently Northern Arizona University) (Powers, 1989). As a result, through state and district assistance, the Navajo Vocational Rehabilitation Program was established to serve Navajo people with disabilities and has been in existence since 1975.

In 1986, a study was funded by the New Mexico Division of Vocational Rehabilitation (NMDVR) and conducted by the All Indian Pueblo Council in collaboration with the Native American Research and Training Center of Northern Arizona University to identify innovative strategies to improve delivery of services to American Indians residing in the 18 pueblos of New Mexico (Martin & O'Connell, 1986). Since completion of the study, NMDVR administrators have initiated unique strategies which included

professionals and paraprofessionals are first-time employees in the field of rehabilitation. Various disciplines have joined forces to manage these innovative programs. The wide range of reported work experience and educational background of project staff members demonstrates the need for training and technical assistance.

A survey of the three American Indian Vocational Rehabilitation Projects which existed in 1987 showed staff development and inservice training as important priorities and essential to providing services comparable to state VR agencies (White, 1987). To address these essential priorities, this study was proposed and conducted to survey the current and future training and technical assistance needs of the newly funded Section 130 projects (N=14). Data sensitive to tribal characteristics and demographics needed to be gathered collectively to obtain an overall impression of programmatic needs and to assess the current rehabilitation service delivery efforts of the American Indian Vocational Rehabilitation projects.

Method

Obtaining data focusing on current activities and prevalent training and

file. Each variable was analyzed using frequency distributions based upon the total responses in the two samples. Information recorded was as complete as possible; however, some items were not answered because specific information was not available or questions were not pertinent to certain projects.

Results

Seventeen projects including the pilots were reported. Region IV had one project in Mississippi. Region VI had one project in Oklahoma and one project in New Mexico. Region VIII had eight projects in four states: Colorado, one; Montana, five; South Dakota, one; and Wyoming, one. Region IX had two projects in Arizona. Region X had four projects in three states; Idaho, one; Washington, one; and Alaska, two.

Characteristics of Project Directors

A total of 19 responses were received from project directors/coordinators. In

degrees, 42 percent (8) had bachelor's degrees and 16 percent (3) reported having high school diplomas. Four of the project directors had master's degrees in rehabilitation, three had master's degrees in education and one had a master's degree in business administration. Five project directors had bachelor's degrees in the social sciences and three had bachelor's degrees in education. Past employment information given by project directors cited job titles within the following disciplines: education (six); counseling (five); social services (two); administration (two); and no response (four).

Characteristics of Project Staff

Forty-five project staff were surveyed. Twenty-seven percent (12) were pilot respondents. The remaining 33 staff respondents represented the other ongoing projects except 2 projects that did not have any support staff. Seventy-six percent (34) were female and 24 percent

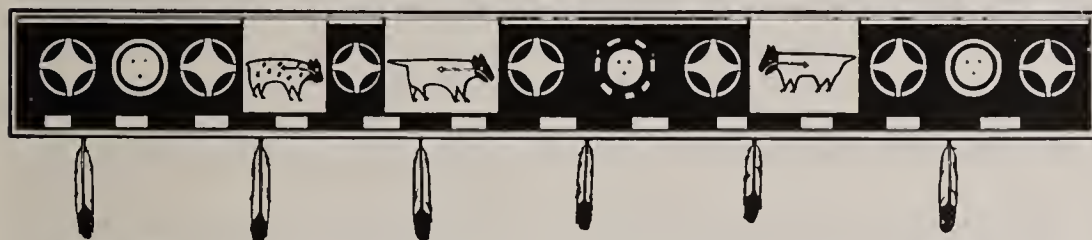
in the following fields: social sciences (two), psychology (one), business administration (one), geography (one), history (one), and three did not specify degrees. Staff members with associate degrees were in the fields of: secretarial sciences (two), human services (two), and three did not specify degree majors. Twenty of the remaining staff had high school diplomas and two chose not to respond.

Most of the work experience reported by project staff were in the disciplines of clerical (11), education (5), social services (3), medical services (3), employment training (3), administration (3), research (2), industrial (2), and the remaining 13 did not respond.

Tribal Affiliations

Project directors were asked to identify which American Indian tribes were being served by their projects. Thirty-nine different tribes and four villages of Alaska Natives were reported as being served. The federal regions represented by American Indian VR projects serving different tribes were Region IV (1), Region VI (6), Region VIII (23), Region IX (3), Region X (6), and 4 Alaska Native villages. These figures indicate that rehabilitation services were reaching 13 percent of the 309 federally-recognized American Indian tribes and 2 percent of the 197 tribal villages of Alaska. These two percentage figures represent the total number of tribes reported as being served by the Section 130 projects in relation to the number of tribes that are federally recognized.

The populations served by each project differed in size, tribal representation and location. Population statistics from the 1989 BIA Report were used to demonstrate the diversity among the projects surveyed. The data collected is based on enrollment living on or adjacent to reservations. According to the 1989 BIA Report, the total American Indian



the pilot phase of the survey, respondents consisted of three rehabilitation counselors who manage field offices in the Navajo Vocational Rehabilitation Program, the director of the Fort Hall Vocational Rehabilitation Program and the director of the Rocky Boy Vocational Rehabilitation Project. The remaining 14 project directors represented the other American Indian VR projects.

Sixty-three percent (12) of the project directors were female and 37 percent (7) were male. Sixty-three percent (12) were of American Indian descent (including one Alaska Native), 32 percent (6) were Caucasian and 5 percent (1) Hispanic.

Forty-two percent (8) had master's

(11) were male. Eighty-seven percent (39) were of American Indian descent (including one Alaska Native), 9 percent (4) were Caucasian and 4 percent (2) were Hispanic.

Sixteen percent (7) reported having master's degrees, 20 percent (9) bachelor's degrees, 16 percent (7) Associate degrees, and 44 percent (20) high school diplomas. Four percent (two) did not respond. Project staff with master's degrees were in the following fields: vocational rehabilitation (one), counseling psychology (one), criminal justice administration (one), regional planning (one), agricultural education (one), and two did not specify. Project staff with bachelor's degrees were

population representing the 11 states of the federal regions surveyed for this study is 778,725. The total American Indian population categorized as unable to work within the confines of the 11 states with Section 130 projects is 80,989. The population of American Indians

Affairs and Indian Health Services. The main provider within the services category was education.

Three of the major industrial divisions providing employment off the reservation were *agriculture, manufacturing and mining*. The response totals indicated low

projects (10) reported 212 contacts for 1987, and showed a substantial increase to 567 contacts for 1988. The beginning – 1 year projects (4) reported zero contacts for 1987 but reported 49 contacts for 1988.

Cooperative efforts among state VR, federal RSA and tribal agencies are essential to address the needs resulting from the data presented.

categorized as unable to work includes those who must care for children, retired people and people with disabilities. According to the 1980 U.S. Census data, 12.7 percent of American Indians of working age (16-65) were work disabled. This would mean that within the 11 states where American Indian VR projects exist, an estimated American Indian population total of 10,286 would be work disabled. The estimated figure of 10,286 does not include the remaining states that do not have American Indian VR projects.

Employment Opportunities

Factors attributing to the lack of employment opportunities on and near reservations has been established through prior studies. American Indians with disabilities who reside on federal Indian reservations and trust lands are located in remote and rural areas which limit access to rehabilitation services. The response of project directors surveyed for this study reiterate the lack of employment prospects.

Project directors were asked what employment opportunities exist on or near reservations. The Standard Industrial Classification (SIC) was utilized to categorize survey responses. Two of the 10 major industrial classifications providing the most employment on the reservations were *public administration and services*. The three main providers of employment within public administration were tribal government, Bureau of Indian

levels of employment opportunities on and near reservations.

Reported Referral Sources

Knowing community resources is important for establishing contacts and identifying agencies, organizations and professionals who can provide needed services and/or refer potential clients. Nineteen types of community resources were listed on the survey form for project directors to report how many clients were referred by other agencies. The list was not exhaustive of possible or existing contacts. Five hundred seventy-four referral contacts were reported for 1987 and 846 were reported for 1988. The combined sums total 1,420 referral contacts for the 2-year period.

Indian Health Services, Social Security, self, and other provided the most referrals during 1987. In 1988, referral contacts increased. Seventy-six percent (643) of the referrals reported were from Social Security, Indian Health Services, tribal organizations, Social Welfare, self, and other.

When referral results were analyzed in terms of project duration, definite differences occurred. Project duration is represented by + 3 years (in existence for 3 years or more), + 1 year (in existence for 1 year or more) and – 1 year (in existence for less than 1 year). The + 3 year projects (5 projects) showed a decrease from 362 referral contacts reported for 1987 down to 230 in 1988. The + 1 year

Disabilities Served

Fourteen examples of different disabilities were listed on the survey form with the opportunity to specify “other” disabling conditions served. The number of disabilities that were served during 1987 and 1988 totaled 1,035.

The disabling conditions most reported by project directors in rank order were: alcoholism (272), “other” disabilities (187), orthopedic/musculoskeletal (113), mentally retarded (96), learning disabled (84), spinal cord injury (43), mental illness/psychological (42), and arthritis (41).

Twenty-two different disabilities with low totals were reported as “Other Disabilities (Specified).” Of the 187 clients listed, the 7 most reported disabilities (with 3 or more references) were heart conditions, renal conditions, cancer, respiratory related, speech disorders, diabetes, and back injuries.

Services Rendered

Twelve types of rehabilitative services were listed on the survey form for directors to report the number of clients receiving specific services provided by the Section 130 projects. Combinations of services may be required to meet each person's needs. The services rendered data included individual totals of each type of service provided per client but not combined totals of services provided per client. Services rendered for the benefit of clients totalled 2,243. Fifty-eight percent (1,312) of the most provided types of services were personal counseling (451), vocational counseling (371), vocational evaluations (267), and psychological testing (223). Work adjustment training,

(Continued on page 27.)

Top Rated Training and Technical Assistance Needs of Project Directors and Project Staff by Total Response, Federal Region and Project Duration

	Total Response	Region IV	Region VI	Region VIII	Region IX	Region X	+ 3 Yrs	+ 1 Yr	- 1 Yr
Vocational Evaluation	-	AC	D	-	-	-	-	-	CD
Sheltered Employment	-	-	-	-	-	C	-	-	-
Rehabilitation Terminology	-	-	-	-	-	-	-	-	A
Medical Terminology	-	-	-	-	-	B	-	-	-
Establishing Resource Contacts	-	-	AC	-	-	-	-	-	-
Job Analysis	-	-	-	-	D	-	-	-	-
Job Placement	C	-	-	-	AC	-	A	C	-
Foundations of VR	-	-	-	-	-	-	BD	-	-
Medical Aspects of Disabilities	B	-	B	-	-	-	-	B	-
VR Legislation	-	-	-	A	-	-	C	-	-
IWRP Development	A	-	-	-	B	A	-	A	-
Confidentiality	D	D	-	BD	-	D	-	D	B
Report Writing	-	B	-	-	-	-	-	-	-
Grantsmanship	-	-	-	C	-	-	-	-	-

- * A = Top Rated Project Director Training Need
 B = Top Rated Project Staff Training Need
 C = Top Rated Director Technical Assistance Need
 D = Top Rated Project Staff Technical Assistance Need

. . . a book review

TAKE CHARGE: A Strategic

Donald Barrett

Probably one of the largest statistical categories of people in this country is that group known as "working-age" adults — people between the ages of 18 and 65, most of whom perform or want to perform some types of job functions in our society.

A significant number of this group includes people with visual impairments, most of whom, like the rest of us, want to work. Yet, many working-age visually impaired people are presently unemployed or underemployed, while others, though working, are otherwise dissatisfied with their present jobs.

In an effort to assist people with visual impairments who fall into this category, *Take Charge: A Strategic Guide for Blind Job Seekers*, by Rami Rabby and Dianne Croft, has been published by the National Braille Press, Inc. Both authors are professionals who have long experience in meeting the employment-related needs of people with visual impairments.

After reading only the first chapter, one realizes that, like many self-help books, this is not light reading. The book makes

it quite clear that although simply finding work, or improving one's job situation, can be an exciting prospect, job hunting requires a lot of effort.

Another characteristic about this book is that, although it is brimming with information and facts designed to assist the job seeker with a visual impairment, the facts and principles outlined in this book apply to *all* people who are either unemployed or underemployed and are seeking a change in their careers. Whether discussing resume writing, interview preparation, the use of cover letters, or strategies for conducting the job search, it contains a wealth of information that can be useful to all of us.

One of the problems that usually plagues publications of this type is that they are usually nothing more than vague "pep talks" about a subject with which the writer is all too unfamiliar. Fortunately, this does not hold true for this particular book, which is characterized by a basic assumption that getting a job requires study, knowledge, a systematic approach, and hard work.

This volume provides a lot of useful information, such as describing the six jobs



c Guide for Blind Job Seekers

that produce the most stress. Although this sort of knowledge may not solve a person's immediate employment problems, the book quite rightly reminds the reader that such factual information gathering can make the difference between failure and success in the job search.

The main premises of the first chapter is that ignorance can be harmful. Due to factors such as fear, lack of guidance and lack of confidence, most people looking for work are full of misconceptions about the best strategies for securing employment. The book makes it clear that maintaining a superficial knowledge about the job market, as well as one's own interests, strengths and weaknesses, can lead to disillusionment and failure.

Take Charge lists four specific strategies that can assist a person in gathering the necessary information to proceed. These are: read, ask and listen, observe, and gain actual work experience. These strategies sound obvious, but the book examines each of them in great detail, providing a wealth of material on specific sources of information as well as various techniques which can be successfully used to implement these strategies. Here again, as in the rest of the book, the authors provide tried and true

methodologies for achieving results.

Among the numerous suggestions provided, for example, are some to assist in securing either paid or volunteer summer work, because such experience can be invaluable in proving abilities and work experience to employers at a later date.

The second chapter builds on the importance of information gathering through a discussion of the need for accurate and honest self-assessment. An examination of the difficulties, and the reasons for these difficulties, in conducting a self-assessment is provided in this chapter, along with a number of strategies for overcoming these barriers. The book points out that the need for self-assessment by people with visual and other disabilities can be especially meaningful, given the unreliable feedback (overly positive or negative) that they often receive from well-meaning family members, friends and co-workers. Several techniques are listed which will have specific appeal to various individuals, and the authors wisely acknowledge that differences in temperament and personality will have a marked effect on the way this whole process is approached. These techniques can range from the analysis of a written or taped autobiography to the use of computer-related assessment tools. Both individuality and thoroughness are stressed.

The remainder of the book, chapters three through seven, provides information on the various aspects of job hunting, from resume and cover letter writing to preparing for an interview. This publication covers various methods of conduc-

ting job searches and provides an inside look at the labor market. Readers learn, for example, that only *20 percent* of job vacancies are filled through vocational rehabilitation agencies, employment agencies and other private services; and the fact that approximately 80 percent of jobs are filled internally through inside hires makes learning the art of networking not only advisable but absolutely essential for successful job hunting.

One learns how to cope with the statistical odds so that the rejections for specific jobs that almost always routinely occur during an extensive job search can be seen as statistically, rather than personally, significant.

Chapter 5, in particular, is an invaluable source of information on just what employers think. It discusses what employers really want in an applicant and how they view blindness. It provides ways of dealing with negative attitudes that may arise. The potential job seeker must put him/herself in the employer's shoes and understand what employers are looking for.

The sixth chapter provides a down-to-earth look at things often overlooked by the potential but naive job seeker, such as managing and preparing for an interview, handling issues related to blindness, strategies for "selling" oneself, salary negotiations, and much more.

The last chapter covers in great detail issues concerning job performance and its relationship to blindness. Topics such as managing blindness and productivity, promotions, successful job performance,

(Continued on page 22.)

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Common Deficiencies of NIDRR Research Applications

J. Paul Thomas, Ph.D.
Toby S. Lawrence, RPT

Each year since 1984, several hundred researchers and clinicians in the rehabilitation-related disciplines have submitted formal applications for consideration by the National Institute on Disability and Rehabilitation Research (NIDRR) in its field investigator initiated research program; and, each year, most of the applications (90 percent) have been rejected because of technical deficiencies. The preparation of an application for federal financial assistance is a time consuming and expensive venture, not to mention an expense to the government for processing the application, completing an intensive scientific review, providing timely and accurate notification, and scheduling investigator debriefing.

This article identifies and describes those deficiencies determined by nonfederal peer reviews during the most recent (1989) competition that diminish scientific credibility of potential findings and results (i.e., if, based on the observed research flaws, the new information generated from the proposed study would be of limited benefit to the rehabilitation field). This is an important consideration, given the limited financial resources available to NIDRR to support rehabilitation research. It is important that the most scientifically correct, relevant and useful information be generated to meet the clinical and program development needs of the field.

The History of NIDRR

The National Institute on Disability and Rehabilitation Research was created in 1978 as the National Institute on Handicapped Research by Congress in the

Rehabilitation, Comprehensive Services, and Developmental Disabilities Amendments of 1978, P.L. 95-602. The institute was to be a focal point within the Executive Branch for the planning and coordination of federally supported rehabilitation research for conducting a portion of that research and for providing new and expanded resources for that research effort. NIDRR developed from the Rehabilitation Research and Demonstration program administered by the Rehabilitation Services Administration (RSA), known before 1967 as the Vocational Rehabilitation Administration.

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The original research authority of the state-federal program of vocational rehabilitation was established in the 1954 amendments to the Vocational Rehabilitation Act. This program provided grants to public and private nonprofit organizations in partial support of research and demonstration projects that proposed some unique national contribution to the knowledge base of rehabilitation theory or practice.

The original purposes included:

- developing new or improved information, methods and devices for use by the disciplines in the rehabilitation of people with physical, mental or severe disabilities;
- increasing the effectiveness of existing programs and stimulating community cooperation and support; and
- providing new professional information and ideas for administrators to aid them in developing and expanding programs, services and facilities for people with disabilities.

Project applications were reviewed by four extramural study sections of the program and the National Advisory Council on Vocational Rehabilitation, which advised the RSA Commissioner in making research grant awards. The four study sections, which were established in areas of high scientific interest and activity, included medical, psychosocial, sensory,

and general rehabilitation and administrative studies.

The Peer Review Process

The current NIDRR scientific-technical peer review process is based on policies contained in the Education Department Grant Administration Regulations (EDGAR). Essentially, the regulations call for the establishment of short-term, ad hoc review panels for each announced competition. At least three or more nonfederal reviewers must review and rank each application, depending on the type of research resource under consideration.

The peer review process actually begins with an announcement in the *Federal Register*, the official Executive Branch mode of dissemination. The announcement sets forth the rules of the research competition, including the subject or priority to be proposed, the funding category, the programmatic objectives and guidelines, review criteria to be utilized, and applicable federal regulations. The reason for this detailed statement is to provide equal access to the information and the opportunity to apply objectivity in the process with no preferential treatment to any individual applicant.

Once applications are received in the Department of Education's Application Control Center (ACC), as per the specifications of the *Federal Register* announcement, they are forwarded to NIDRR for processing and review. Applications must be complete when submitted as additional forms and/or supporting materials cannot be appended by any program office after receipt in ACC. After administratively reviewed and verified in NIDRR, the applications are assigned and forwarded to an appropriate science program office. The designated program staff then inspect all applications for completeness and appropriateness and determine the number of panels and reviewer expertise needed. The next steps include the formal nomination of review

panelists and their final selection. Because of time conflicts caused by professional schedules, vacation plans or illness, usually three to five times as many reviewers are nominated as can be used to assure an adequate pool is available.

The selected reviewers, whose names remain confidential, receive, read and score all assigned applications prior to the scheduled panel meeting in Washington, D.C. During the formal panel meeting, and only in the presence of an assigned NIDRR panel manager, the applications are discussed for scientific-technical merit and ranked for approval or disapproval. Discussion takes place after a certification is completed by each reviewer that no actual or potential conflict-of-interest exists

ed in response to the *Federal Register* announcement of September 8, 1988. Of these, 57 (24.5 percent) were assigned to the Medical Sciences Programs Office. Following assignment to, and review by, four panels and staff, six applications (10.5 percent) were recommended for approval and subsequent funding. The remaining 51 (89.5 percent) of the applications made up the study sample for this statistical analysis.

To properly identify and categorize reviewer responses, a content analysis was completed for all 51 application review materials and discussion summaries. Thirteen categories of application deficiency or research error were identified. Each application was then codified, by reviewer

Five types of research errors accounted for 76.8 percent of all deficiencies noted.

with any applicant organization. Upon conclusion of the panel meeting, the panel manager checks all scores and evaluation materials to assure accuracy and completeness, including a determination that no irregularities existed. Following the panel meeting, the appropriate program office conducts an independent staff review, including formulation of recommendations for award. As a final step, recommendations from the panel and staff, including all supporting materials and documents, are reviewed by the NIDRR director and other appropriate departmental officials in a formal pre-funding conference. A final selection is made by the director and a slate of approved applications is forwarded through the Assistant Secretary of Special Education and Rehabilitative Services to the Department of Education's Grants and Contracts Services (GCS) for negotiation and award.

The Study Methodology

In FY 1989, 232 field investigator initiated research applications were received

response, according to the 13 problem categories. The frequencies for the top three ranked deficiencies for each application were recorded.

Analysis of Results

The 51 disapproved and unfunded applications received a total of 273 deficiencies by reviewers. Recording only the three top ranked deficiencies for each application produced 142 reviewer observations. These 51 disapproved proposals averaged 5.68 deficiencies each.

Five types of research errors accounted for 76.8 percent of all deficiencies noted. Four types of deficiency accounted for 66.9 percent of disapprovable applications. In considering the top three ranked problems per application, those errors that accounted most frequently for disapprovals included *methodological errors* (25 deficiencies) and *inadequate control of subject variables* (25 deficiencies), followed closely by *incorrect or inappropriate research design* (24) and *poor conceptualization of the problem/approach* (21). The fifth most frequently

noted deficiency was *inappropriate statistical analysis* (14).

When identifying the one singular deficiency per application that was most responsible for disapproval, *poor conceptualization of problem/approach* led with 10, followed by a tie for second place between *inadequate control of variables* and *research design errors* (7). *Inappropriate statistical analysis*, ranked next with 6 deficiencies, included *methodological errors* (4), *excessive budget request* (4), *duplication of supported research* (4), and *inadequate background of investigator* (3).

The 13 categories of deficiencies were ranked by frequency as shown in the table below.

Interestingly, while specified in federal review criteria, the *literature review* and

human subjects protection were relatively infrequently noted deficiencies. More important overall considerations to reviewers appeared to be a *weak dissemination plan* (6), *inadequate background or experience* (5) and *duplication of effort* (5).

Description of Research Deficiencies

To the experienced scientific investigator, most of the noted categories of deficiencies or research errors are self-explanatory (i.e., methodology, design, statistical analysis, etc.) However, to avoid misinterpretation and to facilitate a common frame of reference, the writers present a short description and explanation of those deficiencies for which all researchers may not be familiar or that represent special NIDRR criteria that

traditionally may not be considered in analysis of research protocols.

Those categories considered most open to misinterpretation include *lack of medical supervision*, *weak dissemination/use plan*, *inadequate background*, *poor conceptualization of problems or approach*, and *duplication of effort*.

A major deficiency observed in rehabilitation research applications is the presentation of poorly conceived, clinically irrelevant or pedestrian research ideas. This major flaw may be demonstrated by either the presentation of a weak idea or a research approach that is not at the "cutting edge" of appropriate and adequate methodologies of scientific investigation. As will be discussed in the results of this study, this single deficiency accounts for a high percentage of disapprovals. Frequently, reviewers who are not enthusiastic about a research idea will look negatively on other aspects of the proposal, while an innovative, relevant, well conceptualized research issue will generate an aura of enthusiasm despite some apparent weaknesses. In essence, given a keen competition, the new and creative idea will win over the mundane, unimaginative notion.

For medically related proposals, NIDRR acquires the highest level, senior medical specialty participation in peer review activities. Therefore, physicians and other appropriate allied health disciplines in clinical rehabilitation will comprise the major complement of reviewer expertise. Sometimes, nonphysician investigators will propose a study or apply invasive types of diagnostic, evaluative or therapeutic techniques in humans, without adequate medical participation or supervision of essentially medical-surgical procedures. To assure the government's and applicant organization's interest in human subject protection, this type of flawed research is generally considered unacceptable.

Due to limited funding resources for rehabilitation research and the very nature

Rank		Frequency
1	Inadequate control of variables	25
2	Deficiency in methodology	25
3	Research design problems	24
4	Poor conceptualization of problem/approach	21
5	Inappropriate statistical analysis	14
6	Excessive budget request	10
7	Weak dissemination plan	6
8	Inadequate background/knowledge	5
9	Duplication of effort	5
10	Lack of medical supervision	3
11	Poor literature review	2
12	Limited previous productivity	1
13	Inadequate protection of human subjects	1

of the traditions in the rehabilitation research community, a keen interest in effective and purposeful dissemination and utilization has evolved. Field-initiated research, as a major research resource to the field for rapid acquisition of new knowledge, requires thoughtful attention in the development of dissemination and utilization plans for results and findings.

In essence, given a keen competition, the new and creative idea will win over the mundane, unimaginative notion.

Throughout the relevant evaluation criteria, including *importance of problem* (20 points), *design of project* (45 points) and *management and evaluation* (15 points), the proposed investigator is challenged to provide an innovative and well-conceptualized strategy for distribution and application of research results by appropriate target audiences. A well-developed idea with proper design and methodology and worthy of research is not a complete proposal without an effective dissemination plan.

The deficiency of inadequate background of investigator occurs when, occasionally, the less experienced investigator will, out of interest, attempt an area of research with which they have little academic or practical professional experience. Given two proposals identical in quality and importance, the more experienced and/or productive investigator will usually win the review panel's favor because of a greater assumption that there will be success. In a nationally based, extremely keen research competition such as those typical of NIDRR, past productivity and experience, particularly in a recognized and previously published area of endeavor, are essential. Occasionally observed in this category of research deficiency was the applicant with minimal research training or experience who is seeking federal funding support of a particular nonscientific interest or program

development initiative with little or no research component. These proposals have generally been not well received by reviewers.

With regard to duplication of effort, frequently a proposal is submitted in an area of investigation identical or closely similar to ongoing supported research. However, the supported research may be

so new as to not be reported in the scientific literature. This is a particular problem that can best be resolved by direct communication with the potential funding agency or organization. Usually, research supporting organizations are willing to discuss their ongoing research portfolios to avoid potential areas of duplication. Many federal funding agencies, including NIDRR, publish annually a listing or directory of supported research. A quick review can readily identify areas of potential duplication without jeopardizing the proprietary rights of the proposed or supported investigators. Submitting duplicative research proposals, however, can be an embarrassment to the investigating team and the applicant organization. It suggests haphazard preparation and lack of knowledge of one's proposed area of professional endeavor.

Summary

This article seeks to identify and describe those deficiencies determined by nonfederal peer reviewers during the most recent 1989 NIDRR research competition to mitigate successful funding support from the lead federal agency concerned with medical rehabilitation research.

In 1989, 232 field investigator initiated research applications were received in response to the *Federal Register* announcement of September 8, 1988. Of

these, 57 or 24.5 percent were assigned to the Medical Sciences Program Office (MSP). Six applications were ultimately approved and funded (10.7 percent). The remaining 51 (89.5 percent) were statistically analyzed to determine deficiencies significant in warranting disapproval.

The 51 applications averaged 5.68 deficiencies each. Five types of research error accounted for 76.8 percent of all deficiencies noted by reviewers. These included methodological errors (25) and inadequate control of subject variables (25), followed by inappropriate research design (24), poor conceptualization of problem/approach (21) and incorrect statistical analysis (14). The top ranked singular deficiency was poor conceptualization of problem or approach. Other flaws warranting lowering of potential scores by reviewers included excessive budget requests, duplication of effort with ongoing supported research, inadequate background of investigator, and weak dissemination and utilization plans.

In conclusion, many applications are submitted for the NIDRR field investigator initiated research program competitions that are significantly deficient. Those identified areas of deficiency cover most of the conceptualization, research design and methodological criteria essential for valid, creditable scientific investigation. Without careful attention to the tradition and basic principles of the scientific method, these efforts will not contribute to the acquisition of new and useful knowledge which is so badly needed in a young and rapidly developing field.

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Take Charge

(Continued from page 17.)

and reasonable accommodation are examined.

In addition, additional sources of information, such as publications, organizations and resource professionals, are provided.

This book, then, is a must for those who want to become more aware of the many possibilities and options available to people with visual impairments in seeking or upgrading employment. The book itself says it best, "This book is for you: the unemployed, but determined to-be-employed, blind job seekers; the employed, but determined to-be-better-employed blind job seeker; the savvy parent of a blind child, who sees a brighter future; the smart rehabilitation counselor who understands who's in charge; the conscientious teacher who provides career counseling; the employer who wants to be prepared for the next take-charge blind job seeker who walks through the door."

This book is available from the National Braille Press, Inc., 88 St. Stephen Street, Boston, MA 02115 (telephone: (617) 266-6160), in regular print for \$23.95 (which includes UPS shipping), and for \$19.95 for any of the following formats: in Braille, four-track NLS-compatible audio cassette, 5 and 1/4-inch PC compatible computer diskette, and VersaBraille II disc. For UPS delivery, add \$4.00.



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NEWS, NOTES, ANNOUNCEMENTS

New Texas Law Aids Disabled Motorists

Under a new state law, disabled motorists in Texas who require assistance when purchasing gasoline at service stations and convenience stores that operate full-service and self-service pumps are now ensured of paying the lower price.

Goodwill Tops 100,000 Clients Served in '89

Goodwill Industries of America (GIA) set a new record for rehabilitation services to people with disabilities or vocational disadvantages in 1989 with 103,446 clients served.

According to GIA President and Chief Executive Officer David M. Cooney, "The 19.4 percent increase in client service can be attributed to the fact that Goodwill is serving greater numbers of disadvantaged persons. Our research indicates that more than 42 percent of our disadvantaged clients are those on welfare seeking employment and better lives. With Goodwill's help, more than 20,000 people who were on welfare in 1988 are now on the way to being taxpaying members of the community."

On the national level, total revenue generated by Goodwill Industries topped \$601 million in 1989.

"We are a nonprofit organization, which means that revenues are directed back into Goodwill's programs, allowing increased vocational rehabilitation for our clients," said Mr. Cooney. "Goodwill Industries is not waiting for the federal government's help in developing ways to lower the national welfare payroll."

Being North America's largest non-profit provider of employment services for people with disabilities and others with special needs, Goodwill is also the world's largest private sector employer of people with disabilities. During 1989, Goodwill employed 47,303 disabled or disadvantaged persons in its own facilities, retail outlets and industrial contract programs and placed 17,735 clients in competitive employment outside Goodwill Industries.

In addition to reducing welfare and other subsidy costs, local state and federal taxes paid by Goodwill clients totaled \$40 million in 1989.

Vocational rehabilitation services, including skills evaluation, work adjustment programs, job training, and job placement, are provided by the 178 autonomous local Goodwill agencies in the United States, Canada and the Pacific basin, which together make up the Goodwill Industries of America network.

New Music Course Designed for Blind

A recorded course in music theory developed exclusively for the National Library Service for the Blind and Physically Handicapped (NLS), Library of Congress, by American composer Barbara Kolb was announced recently by NLS.

The cassette course gives blind people the opportunity to learn about meaning and beauty in music through independent study.

Designed for the NLS program, the course introduces the basic elements of melody and rhythm and gradually develops the student's understanding of form, harmony and style. The course

concludes with an analysis of a major work.

The cassette tapes fill a need for an instructional course in music theory that does not require a knowledge of braille or music. Traditionally, music theory has been taught with a strong reliance on published sources, both printed and recorded.

Ms. Kolb, the creator of this course, was the first American woman to receive the prestigious Prix de Rome in composition (1969).

Since 1962, NLS has provided a library of musical scores for blind and visually impaired people. This course is now available free on loan to eligible blind and physically handicapped people.

For further information, contact Shirley P. Emanuel, Head, Music Section, at this toll-free number: 800-424-8567.

Disability Management Conference Scheduled

The Fourth Annual National Disability Management Conference is planned for October 22-23, 1990, at the Doral Resort and Country Club, Miami, Florida.

Sponsored by the Washington Business Group on Health's Institute for Rehabilitation and Disability Management and Thomas L. Jacobs and Associates, the conference will convene about 400 participants from business, insurance, government, unions, medical and service providers to discuss cost effective ways to manage disability at the workplace and exchange creative strategies for returning disabled employees to productive employment.

For more information, contact Elise Lipoff at the Washington Business Group on Health, 229½ Pennsylvania Avenue, S.E., Washington, D.C. 20003. Telephone: (202) 547-6644.

The Washington Business Group on Health, a national, nonprofit coalition of

200 major companies, established the Institute for Rehabilitation and Disability Management to assist companies in implementing strategies for retaining and hiring employees with disabilities. Thomas L. Jacobs & Associates, founded in 1915, is a management consultant firm with specialties in employee benefits, cost containment and disability benefit program administration.

New Service Available for Deaf and Hearing Impaired Investors

The 20 million Americans who are deaf or hard of hearing can now conduct their financial affairs directly by telephone through a new service offered by Merrill Lynch & Co., Inc.

By dialing 1-800-765-4TDD, a deaf person with a Telecommunication Device for the Deaf (TDD) can request information through a computer system, with menus similar to that of a cash machine. By dialing 1-800-765-4HOH, a hard-of-hearing person can speak with a customer service representative who is equipped with a speech amplification device.

According to Christopher D. Sullivan, Manager of Deaf/Hearing Impaired Investor Services, who joined Merrill Lynch in 1987 as the first deaf analyst on Wall Street, Merrill Lynch is the first full-service investment firm to offer this type of service on a national basis.

ASHA Convention Set

The American Speech-Language-Hearing Association's 1990 Annual Convention is scheduled for November 16-19, 1990, at Washington State Convention Center, Seattle, Washington.

For further information, contact ASHA, 10801 Rockville Pike, Rockville, Maryland 20852. Telephone: (301) 897-5700.

New Leg Brace Cited for Innovation

A new lightweight, inexpensive leg brace for people with paraplegia developed at the Institute for Rehabilitation Research, Houston, Texas, and supported with funds from the National Institute on Disability and Rehabilitation Research, has been judged the most outstanding innovation in prosthetics and/or orthotics practice from 1987 to 1989 by the International Society for Prosthetics and Orthotics (ISPO). This modular knee-ankle-foot orthotic device assists paraplegic patients in standing and most ambulation during the early stages of their rehabilitation.

Newsletter Offers Information for Hiring Disabled People

What does a business need to do to take advantage of a tax credit for hiring people with disabilities? How can a computer accommodate a worker who is blind? Where can you turn to for resources on supported employment?

These are some of the kinds of issues reported every other month by *In The Mainstream*, the newsletter about moving people with disabilities into the workplace. Now you can order individual articles (one to four pages in length) on everything from how to develop an evacuation plan for disabled employees to how the authors of the Americans with Disabilities Act see "reasonable accommodation" working in the real world. Cost is \$2.00 per report, including handling and postage. Currently, a selection of over 85 articles is available. An order form that includes a summary of these articles is available from ITM, Mainstream, Inc., 1030 15th Street, NW, Suite 1010, Washington, D.C. 20005. Telephone: (202) 898-1400 (Voice/TDD).

ADA Information Packet Available

With passage of the Americans with Disabilities Act (ADA) on the horizon, Mainstream, Inc., has assembled a packet of information on three fundamental issues employers will have to address once ADA goes into effect.

Making Reasonable Accommodations, a series of 11 articles, covers the entire accommodations process and provides examples of modifications that compensate for specific physical or mental limitations in the workplace.

Architectural Accessibility includes an explanation of architectural barriers, an accessibility checklist and a description of the teamwork approach towards barrier free design.

Interacting with Applicants and Employees with Disabilities provides tips on interviewing people with physical disabilities, how to supervise employees with mental illnesses and proper word choice when speaking or writing about members of the disability community.

Cost of this information packet is \$20 through Mainstream, Inc., P.O. Box 65183, Washington, D.C. 20005-5183, ATTN: ADA-AID.



Rehab Education

(Continued from inside cover.)

retain their human resources. Employee capacity building is the major purpose of our state agency in-service programs and the regional continuing education programs. These agencies are no longer involved in just "training" — they are changing their systems to address the needs of human resource development. They are working hard to assure that they have the right qualified people in the right jobs meeting the needs of people who are severely disabled. The basic goals of the human resource programs are to create opportunities for employees to acquire the appropriate knowledge and skills to do their jobs under everchanging circumstances and to meet newly identified needs of the people they serve and the agency they work for.

To meet these basic goals and the increasing shortage of qualified personnel, state agencies, educators and other providers are faced daily with problems that beg for creative and resourceful solutions if we are successfully to recruit, train, employ, and retain "the best and the brightest," "the dedicated and the loyal," and "the professional and the accountable" people for the critical work that is performed in the vast national network that comprises the state-federal vocational rehabilitation service delivery system.

We are all familiar with some of these problems: low salaries, poor working conditions, too much paperwork, heavy caseloads, too close supervision, and inadequate or outmoded training or education.

As rehabilitation professionals, each of us holds a special responsibility, an obligation, to seek and to provide the best training and education that money can buy to assure the availability of qualified rehabilitation workers for the state-federal service delivery system. RSA wants and will be a major partner in that initiative.

We are fully aware that people are the most valuable resource in the state-federal program. I know that in concert with the rehabilitation educators and training specialists, the providers of rehabilitation services can assist in developing programs that will assure the education and training needed to get the right people to the right jobs.

We stand at the crossroads of rehabilitation education. RSA is embarking on a number of projects that require the knowledge, experience, talents, and wisdom of everyone involved, directly or indirectly, in the rehabilitation process who care about the provision of quality rehabilitation services.

Last February, I launched a nationwide RSA training needs assessment that gives state VR agencies a major role in networking at the grass roots in search of information that will document our personnel training needs. The participation of all organizations, universities and people who have a stake and an interest in rehabilitation training, is expected. Early reports of participation are promising. The bubble-up process that we are using calls for regional and national meetings of panels of experts to help us sort out the data and prepare recommendations for the 1991 training priorities.

In a parallel move, my staff is putting the finishing touches on the RSA 1990 evaluation contracts. We are especially excited about this year's array of projects. It marks the first time in many years that RSA has control over the section 14 evaluation funds (\$1 million). One of the three projects concerns a study of the recruitment and retention practices concerning selected rehabilitation professions. From this intensive exploration of issues and concerns surrounding these shortage areas, we anticipate useful recommendations for positive action in the 1992 training grants cycle.

These two initiatives, coupled with the 11th hour action and a *priori* decision on the publication of the 1990 priorities —

a chore that I did not relish but found absolutely essential to maintain balance in the program — bring focus to this mission. We are operating a \$30 million rehabilitation education program without an adequate mission statement and without thoughtful and relevant goals, objectives and implementation strategies. Our planful search for a model, or parts of a model, that will contribute to an integrated totality approach to the funding of rehabilitation training and education has begun.

The legislative authorities for rehabilitation training and education were carefully constructed by the great leaders of the mid-1950's — Mary Switzer, E. B. Whitten, Dr. Howard Rusk, Senator Lister Hill, and Congressman John Fogarty. The RSA training program has provided the foundation for the vast network of rehabilitation services for some 36 years. The program and the people who administer it and the people who teach in it have brought enlightenment, accountability and professionalism to the delivery of services for the benefit of the people with disabilities that we serve. The program has served as the springboard for curriculum development and innovation, the preparation of ethical performance standards, and accreditation, certification and licensure initiatives.

It has precipitated research and it has put to use findings that improve and expand services and practices. The program has contributed to the pursuit of excellence in rehabilitation education in ways that exploit applied imagination and creativity, capitalize on the tremendous reservoir of talented people working in state agencies, universities, community based facilities, client assistance programs, and independent living centers.

The achievement of excellence in rehabilitation education is a goal to which the entire national rehabilitation network must be committed. The 70-year history of the state-federal vocational rehabilita-

tion program suggests that its success is due, in great part, to the quality of personnel produced by the RSA-supported training program. It is reasonable to expect that the newer programs in supported employment, independent living, projects with industry, American Indians, and migrants, will enjoy the same success. Future challenges of the state-federal VR program can be met by increasing and improving the supply of qualified rehabilitation administrators, direct service practitioners, educators, and researchers. The pursuit of excellence in rehabilitation education is worthy of unconditional support, unbridled creativity and solid professionalism. The people we serve throughout the rehabilitation process deserve it and we should demand it. I know that, *together*, we can meet the challenges of the 1990's and achieve excellence in rehabilitation education.



Technology

(Continued from page 10.)

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Indians

(Continued from page 14.)

job placement and independent living skills followed closely with totals a little less than 200.

Six projects reported that 85 clients received "other" services. The other services rendered were resource management (31), training (22), transportation (18), on-the-job training (6), education (2), physical capacity evaluation (1), and not specified (5).

Nine hundred eighty-four clients were served in 1987 and 1988. In 1987, 341 American Indian clients were reported as having been served by 9 of the Section 130 projects. In 1988, 643 clients were reported as having been served by 16 projects. This total is 436 less than the total number of referral contacts reported.

Thirteen project directors collectively provided the following reasons for unsuccessful closures: failure to cooperate (seven), ineligible (five), moved (four), and dropped out and/or loss of contact (four). Closure totals were not reported. The mean percentage for clients not willing to relocate was also calculated at 60 percent with a standard deviation of 32.985.

Training and Technical Assistance

Twenty-four different components of rehabilitation services were listed on the survey instruments to ascertain the scope of training and technical assistance needs of project staff. The data provides determinants of resources which will aid in raising levels of staff competence in rehabilitation.

Respondents were given the opportunity to rate each item listed by prioritizing what they perceived would meet their programmatic needs. A rating scale of 1 to 5 was used (1 representing the greatest need). The response levels were: 1 = essential, 2 = very important, 3 = important, 4 = less important, and 5 = not important. Response totals varied in both

groups. Some items were not ranked by all respondents.

The results were analyzed according to total group response of both administrative and support staff, by federal region and by the length of existence of projects (+3 years, +1 year and -1 year). The factors rated as "essential" and "very important" were combined to produce the rank order of the surveyed training and technical assistance needs. As a result of this rating analysis, 81 percent (18) of the project directors rated Individualized Written Rehabilitation Plan as the top training need and 80 percent (8) rated job placement as the top technical assistance need. Project staff rated medical aspect of disabilities as the top training need at 79 percent (26) and confidentiality as the top technical assistance need at 85 percent (23).

Discussion and Recommendations

Review of the study results gives a confirmed indication of the need for rehabilitation services training and technical assistance from several levels and perspectives. Cooperative efforts among state VR, federal RSA and tribal agencies are essential to address the needs resulting from the data presented. Although increased efforts have been mandated, the need to coordinate efforts among state, federal, local, and tribal agencies remains.

Administrators of the American Indian vocational rehabilitation projects may be considering expanding on the types of services presently offered. An overall assessment of prevalent disabilities and rehabilitative service needs would determine what services should be considered to meet the needs of the targeted population to be served.

The results of this study gives an overview of what rehabilitation services the American Indian vocational rehabilitation projects presently address and what would enhance program development and professional growth. Considering the federal,

regional, state, and tribal entities involved in providing programmatic support to American Indians, the scope of recommendations encompasses all groups involved. The following recommendations encourage cooperative efforts for all con-

Steps should be taken to develop relationships between American Indian vocational rehabilitation projects and prospective employers.

cerned with addressing rehabilitation of people with disabilities.

Recommendations:

- Involve American Indian Vocational Rehabilitation staff, tribal officials and community/tribal members in the capacity of advocacy and advisory roles. This could be accomplished by apprising tribal officials of existing needs and by seeking their involvement and support through resolutions and personal commitment. In addition, tribal parents and members of health and education committees can lend support through participation and personal commitment. A current assessment of present state VR initiatives and cooperative agreements with tribal groups is needed. This type of information will help identify successful approaches to establish working relationships and interagency linkages to address the needs of American Indians with disabilities.

- American Indians vocational rehabilitation projects should collaborate with state VR agencies, Regional Rehabilitation Continuing Education Programs, university rehabilitation programs, and Rehabilitation Research and Training Centers to address the identified training and technical assistance survey results. Educational and training materials which have been developed by many state and federal VR agencies, university programs, material development centers, and research and training centers are available

for dissemination. Section 130 projects could contact these agencies to be included on mailing lists to receive bulletins, media material and information of upcoming training.

- State VR agencies should create

statewide American Indian liaison positions to network rehabilitation efforts that may have been hampered in the past. Positions could also be created for rehabilitation counselors in Indian Health Services facilities on American Indian reservations to work closely with state VR agencies, physicians, physical therapists, occupational therapists, and other service providing agency personnel.

State VR agencies should create statewide American Indian liaison positions to network rehabilitation efforts that may have been hampered in the past.

- Increased efforts should be undertaken to involve state VR agency personnel in heightening their understanding about social, linguistic and cultural differences that exist between tribes. Not only does one have individual needs related to one's disability, but his/her language, customs and cultural values vary in many ways from that of other tribes within the same geographical regions. One cannot generalize that all tribes are the same.

- Steps should be taken to develop relationships between American Indian vocational rehabilitation projects and prospective employers. Local labor market surveys can be conducted to determine what type of employment possibilities exist. Project staff can initiate contact with

fraternal organizations, public service groups, personnel management, and business associations to promote job placement and job development for American Indians with disabilities. Project staff can contact small, medium-sized and big businesses to introduce the prospect of creating or restructuring jobs and explain the advantages of hiring disabled workers.

- Tribal officials and tribal employees need to familiarize themselves with the prevalent types of disabilities that exist among their people and learn about the VR process by establishing working relationships with state and regional VR agencies. Studies should be conducted to assess what disabilities exist among different tribes and what the tribal attitudes are toward disabilities. Attitudes, morals and values vary among different tribal groups. Attitudinal studies would help determine what type of services would best meet the

needs of the disabled population among the different tribal groups with Section 130 projects. Needs assessments and surveys should also be conducted to obtain a more accurate account of American Indians with disabilities on and near the reservations. This information would justify the need for expanding or improving rehabilitation service delivery efforts.

- Careful consideration should be given to commitment by American Indian vocational rehabilitation staff in view of continuation and longevity of programs. Section 130 staff should be willing to make a commitment toward achieving stability and development of the project. Turnover of staff only hinders and delays progress and success.

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REPORT RESOURCES

SCIENCE AND TECHNOLOGY ANNUAL REFERENCE (STARR) 1990. H. Robert Malinowsky, editor. The Oryx Press, Suite 103, 2214 N. Central at Encanto, Phoenix, Arizona 85004-1483. Toll-free number, 1-800-ORYX. (In Arizona, Alaska or Hawaii, call 602-254-6156.) 368 pages. Hardcover, \$55.00. Available on standing order at a 5 percent discount. Postage and handling are free on prepaid orders.

This publication features extensive, signed reviews of nearly 800 science and technology reference books published in the current and previous year. It is designed to help librarians and researchers find the best and most up-to-date handbooks, manuals, abstracts, dictionaries, treatises, guides to literature, catalogs, and more in such subjects as general science, agriculture, astronomy, mathematics, biology, medicine, physics, earth science, and technology (biotechnology and computer). Each listing includes a detailed, evaluative review, written by a librarian with a strong background in the specific area. In addition, complete bibliographic data are also included. Users can locate specific references through four indexes: subject; name (including authors, editors, and compilers); title, which includes subtitles, numbered series, cover titles, and original titles of translations; and type of library.

DATA ON BLINDNESS AND VISUAL IMPAIRMENT IN THE U.S.: A RESOURCE MANUAL ON SOCIAL DEMOGRAPHIC CHARACTERISTICS, EDUCATION, EMPLOYMENT AND INCOME AND SERVICE DELIVERY. Compiled by Corinne Kirchner, Ph.D. Available from Publications and Information Services Department, American Foundation for the Blind, 15

West 16th Street, New York, New York 10011. \$22.95, plus \$3.50 for postage and handling.

Did you know that the rate of visual disability is higher among women and ethnic minorities than white males? That the number of legally blind school children has increased steadily since 1970, even though there has been a decrease in the general school population? That 59 percent of those identified as severely visually impaired report an additional disability? These and other facts and figures about blindness are reported and analyzed in this publication, which features statistics and research studies from a wide range of agencies, services and programs for blind people. It includes statistics on employment and educational level as well as the status of state and federal programs serving blind and visually impaired people.

Among other uses, the demographic studies in the book can help document the need in grant proposals for innovative programs, research and technology. The research can also support testimony at federal and state hearings on legislation that benefits disabled people.

DATA ON DISABILITY FROM THE NATIONAL HEALTH INTERVIEW SURVEY: 1983-1985. Mitchell P. LaPlante, Ph.D. Available through Inez Fitzgerald Storck, Project Officer, National Institute on Disability and Rehabilitation Research (NIDRR), U.S. Department of Education, Washington, D.C. 20202-2646. 170 pages. Softcover, free.

Produced by InfoUse, Inc., under contract to NIDRR, the publication presents estimates of the number of persons with specific impairments and chronic conditions, giving breakdowns by gender and

age group for the approximately 60 conditions and condition groups covered.

The report also gives estimates of three groups of disabled people: 1) those with a limitation of activity, both partial and complete; 2) those with a work disability; and 3) those needing personal assistance in basic and routine activities of daily living. For all three disability categories, breakdowns are included for the primary and secondary conditions causing the disability and a number of demographic variables — age, gender, race and ethnicity, income level, poverty status, educational level, and marital status.

THE PAYMENT OF MEDICAL REHABILITATION SERVICES: CURRENT MECHANISMS AND POTENTIAL MODELS. Andrew I. Batavia, J.D., M.D. Order Processing, American Hospital Association, 840 North Lake Shore Drive, Chicago, Illinois 60611. \$30 (AHA members, \$25).

This book develops a framework and methodology by which to understand potential models for payment of medical rehabilitation services. It sets forth the author's criteria for evaluating the merits of any financing alternative, weighs the relative importance of the criteria and applies them to potential payments models for rehabilitation care.

HOPE PATIENT RECORDS. The Hope Group, Inc., 613 East Tenth Avenue, Bowling Green, Kentucky 42101. 225 pages. \$140 plus \$6 for postage. This resource is backed by a 15-day no-risk guarantee.

First in a series of HOPE manuals for use in helping other people evolve from addictive life styles, this two-volume manual promises to provide timely assistance in light of the treatment industry's efforts to comply with the criteria set forth by the Joint Commission on Ac-

creditation of Healthcare Organizations and the Commission on Accreditation of Rehabilitation Facilities.

According to the publishers, these loose leaf manuals include all the patient record keeping forms treatment personnel will probably need. Detailed forms are provided for admission procedures, medical, assessments, intervention/treatment, aftercare, family participation, confidentiality, insurance, finances, and discharge.

SYMPOSIUM ON COMPLIANCE IN RHEUMATOID ARTHRITIS. Arthritis Foundation, Professional Education Department, 1314 SPRING STREET, N. W., ATLANTA, GEORGIA 30309. \$10.

Proceedings from a national symposium on compliance issues about people with arthritis, this 86-page volume provides a distillation of the current work on compliance in the arthritis field that is unavailable in one volume anywhere else.

The Arthritis Foundation sponsored symposium brought together rheumatology and behavioral science experts nationwide for intensive discussions about chronic disease compliance, especially among people with arthritis. Published as a supplement to *Arthritis Care and Research*, the journal of the Arthritis Health Professions Association, the proceedings offer topics pertinent to general compliance issues as well as those specific to chronic rheumatic diseases, particularly rheumatoid arthritis, pediatric rheumatology and arthritis clinical trials.

RESOURCES FOR ELDERS WITH DISABILITIES. Resources for Rehabilitation, 33 Bedford Street, Suite 19A, Lexington, Massachusetts 02173. Telephone: (617) 862-6455. \$39.95 plus \$4.50 for shipping and handling.

Printed in 18 point bold type, this publication provides information about organizations, publications and assistive

devices that enable elders with disabilities to function independently and to locate sources of assistance for the following disabilities and diseases: hearing loss, vision loss, arthritis, stroke, osteoporosis, and diabetes. Also included is information on the diseases that cause each condition, the major rehabilitation service networks and legislation that affects people with disabilities.

Also available from Resources for Rehabilitation is a series of large print materials for people with disabilities. All printed in the same easy to read 18 point bold type, titles include *Living with Arthritis*, *Living with Hearing Loss*, *After a Stroke*, *Living with Diabetes*, and *Living with Low Vision*. Send a self-addressed stamped business envelope to receive an order form.

AIDS & VISION LOSS. Written by medical writer Edwin Kiester, Jr., and published by American Foundation for the Blind, 15 West 16th Street, New York, New York 10011. Available in both print and audio cassette for \$15.95 plus \$3.50 for shipping and handling.

As people with AIDS continue to combat pneumonia, Kaposi's sarcoma and severe herpes, an estimated 75 percent may also face the potential loss of sight. This publication presents information for people with AIDS on how to cope with vision loss, where to go for help, what services are available, and how professionals in the area of blindness and visual impairment are meeting their unique needs.

This publication is based on extensive research and interviews with ophthalmologists, physicians, educators, rehabilitation counselors, hospice workers, blindness professionals, and others who provide services to visually impaired people with AIDS and is intended as a reference as well as policy guide for AIDS-care providers, medical and health professionals and professionals in the blindness field.

The first few chapters profile AIDS — its causes, symptoms, emotional impact, and visual complications, as well as the people at risk and the status of available treatment drugs. Subsequent chapters provide guidelines for developing policies regarding services, program models for training agency staff to work with people with AIDS and an overview of appropriate services available. Also included are strategies — supported by case histories for providing rehabilitation and vocational support, low vision services and orientation and mobility training.

Two separate reference sections are included — one listing sources of information about blindness and visual impairment and the other listing sources of information about AIDS.

A BIBLIOGRAPHY OF SELECTED RESOURCES ON CULTURAL DIVERSITY FOR PARENTS AND PROFESSIONALS WORKING WITH YOUNG CHILDREN WHO HAVE, OR ARE AT RISK FOR, DISABILITIES. PACER Center, 4826 Chicago Avenue South, Minneapolis, Minnesota 55417-1055. 68 pages. \$6.

Compiled to facilitate networking and collaboration in working with culturally diverse populations, this annotated bibliography lists printed materials (books, journal articles, newsletters) and selected organizational resources across the nation covering a wide range of disabilities, including Limited English Proficiency (LEP). While the focus is on early childhood resources, the bibliography is general enough to be useful for all age groups.

The materials are divided into two categories: General Information on Cultural Diversity; and Resource Information on Selected Cultural/Ethnic Populations: Asian/Pacific Islander, African-American, Hispanic, and Native American/Alaska Native.

The bibliography is a project of

NEC*TAS (National Early Childhood Technical Assistance System) under a contract with the Office of Special Education Programs, U.S. Department of Education. The bibliography was compiled by PACER Center in conjunction with NEC*TAS.

RIGHTS OF TENANTS WITH DISABILITIES UNDER THE FAIR HOUSING AMENDMENTS ACT OF 1988. Community Watch at the Mental Health Law Project, 1201 L Street, N. W., Washington, D.C. 20036. 20 PAGES. \$2.50.

This booklet describes, in question-and-answer format, what tenants can expect when they apply for and live in public or private rental housing, what landlords must do to avoid illegally discriminating against applicants or tenants with physical or mental disabilities, and what a tenant can do if discrimination does occur. The booklet includes detailed notes and a sample fair housing complaint form.

The guide is designed to help advocates and consumers open doors and solve problems. For landlords, the text explains their responsibilities to applicants and tenants with disabilities and defines the limits of their obligations.

DIRECTORY OF MEDICAL REHABILITATION PROGRAMS. The Oryx Press, 2214 North Central at Encanto, Phoenix, Arizona 85004. 387 pages. Softcover, \$95.

Over 1,000 programs and facilities that provide medical rehabilitation services to people disabled by injury or debilitating disease can be found in this new directory, which is designed to help social workers, physicians, discharge planners, and librarians answer questions and locate facilities that meet their clients' specialized needs.

Comprehensive program profiles describe services found in hospital spon-

sored rehabilitation departments, private hospitals and free-standing clinics.

Each detailed profile lists name, address and phone number; names of administrative and medical directors; date established; accreditations; affiliations; description of physical setting; type of referral needed for admission; types of financial coverage accepted; specialty groups served; and specific diagnoses treated.

In addition, other client services listed include: sliding fee scale, hotline, free initial interview, wheelchair access, evening and weekend hours, patient/client library, information and referral, support groups, publications/periodicals, and educational workshops.

THE ILLUSTRATED DIRECTORY OF HANDICAPPED PRODUCTS. Trio Publications, 497 Cameron Way, Buffalo Grove, Illinois 60089. 192 pages. \$12.95.

This buying guide has approximately 700 photos and descriptions of products designed to aid people with physical disabilities to live and work better. The products range from wheelchairs and other mobility products to daily living devices designed to make life easier and more enjoyable. The product listings are organized into 16 categories for ease of use and each has a 50-75 word caption describing its features. Manufacturers' addresses and phone numbers are included, as well as retail suppliers throughout the country.

PUBLICATIONS & FILMS

Competitive Job-Finding Guide for Persons with Handicaps and Job-Finder's Workbook. Chet Muklewicz, Ed.D., and Michael Bender, Ed.D. College-Hill Press, 4284 41st Street, San Diego, California 92105. Guide: 220 pages, softcover, \$29.50. Workbook: 64 pages, softcover, \$35 for each set of 10 booklets.

These publications have evolved from 10 years of the authors' experiences in helping students and clients obtain employment. Chapters deal with such topics as: Understanding Employment Perspectives, Addressing the Uniqueness of Handicaps, Organizing Client Activities, Strategies to Facilitate Employment Transitions, Assessing Work Readiness, Removing Employment Barriers, Selecting Employment Objectives, Job Analyses and Job Accommodations, Characterizing Clients as Qualified Workers, Strategies for Obtaining Employment, Adjustments to Employment, and Locating Community Resources and Services.

Directory of Services for Blind and Visually Impaired Persons in the United States. 23rd edition. American Foundation for the Blind, 15 West 16th Street, New York, New York 10011. \$39.95 plus \$4.50 postage and handling. For information on quantity discounts call (212) 620-2143.

Nearly doubling the listings since the last edition, this directory has been expanded to include more than 1,500 local, state, regional, and national services and programs. The directory lists and describes a wide range of services and programs for blind and visually handicapped people of all ages. Among the entries are low vision clinics, state commissions for blind and visually impaired people, vocational rehabilitation agencies, depart-

ments of education, employment and training programs, Talking Book and Braille libraries, residential schools, infant and preschool programs, dog guide schools and services, federal agencies, university professional training programs, instructional materials centers, and computer training programs. A new section entitled "How to Find Services" explains how to obtain services along with information about who is eligible and how to apply. A new format also makes the directory easier to use: readers can consult a comprehensive categorical subject index, an alphabetical organization index and state-by-state listings.

The Political Economy of Developmental Disabilities. Paul J. Castellani, Ph.D. Paul H. Brooks Publishing Company, P.O. Box 10624, Baltimore, Maryland 21285. 220 pages. Softcover, \$19.95.

This resource provides a framework for understanding the dynamics of a dramatically changing service system and describes the powerful political, economic and social forces that have affected deinstitutionalization and the growth of community-based services.

College and Career Programs for Deaf Students. 1988-89 edition. Produced jointly by the National Technical Institute for the Deaf at Rochester Institute of Technology and Gallaudet University. Available through Center for Assessment and Demographic Studies, Gallaudet University, Kendall Green, 800 Florida Avenue, N.E., Washington, D.C. 20002. \$12.95 plus postage.

Comprehensive listing of college programs for young deaf adults provides current information on more than 150 postsecondary educational facilities

throughout the United States and Canada. This guide contains an alphabetized program listing by geographic region and state, information about admissions, enrollments, costs, degrees available, and preparatory activities for each program. Also included is reference table of support services available at all institutions as well as an informative question and answer section for students.

Spinal Cord Injuries: Psychological, Social, and Vocational Rehabilitation. Second Edition. Roberta B. Trieschmann, Ph.D. Demos Publications, 156 Fifth Avenue, Suite 1018, New York, NY 10010. 345 pages. Hardcover, \$44.95.

Input for this volume was derived from a review of the scholarly literature on the psychological, social and vocational rehabilitation of people with spinal cord injury and from the personal experiences of many who have lived successfully with this disability.

Ethics of Dealing With Persons With Severe Handicaps: Toward a Research Agenda. Edited by Paul R. Dokecki, Ph.D., and Richard M. Zaner, Ph.D. Paul H. Brooks Publishing Company, P.O. Box 10624, Baltimore, Maryland 21285. 304 pages. Softcover, \$22.95.

Focusing on the moral and practical issues, ethicists, theologians, special educators, psychologists, physicians, and lawyers give their views on the present state of affairs and the key moral issues.

A Good Investment: Meeting the Needs of Your Hard-of-Hearing Employees. SHHH, 7800 Wisconsin Avenue, Bethesda, Maryland 20814. A videotape produced by the Department of Instructional Design and Evaluation and the Division of Public Affairs at the National Technical Institute for the Deaf at Rochester Institute of Technology.

Package includes videotape, user's guide and audience handouts. \$20.

This video offers methods to meet the needs of hard of hearing employees and explains various assistive listening devices such as telephone amplifiers, induction loops and FM and infrared systems, all of which can improve the acoustic environment in business and industrial settings.

Work and Mental Illness: Transitions to Employment. Bertram J. Black. The Johns Hopkins University Press, 701 West 40th Street, Suite 275, Baltimore, MD 21211. 262 pages. Hardcover, \$35.00.

The author, who is Professor Emeritus, Department of Psychiatry and of Epidemiology and Social Medicine, and Senior Advisor, Rehabilitation Research and Training Center for Psychiatrically Disabled Individuals, Albert Einstein College of Medicine, describes the development of work opportunities for people with mental illness and the programs he has implemented. Two chapters are devoted to programs in Western Europe and other countries.

Primer on the Rheumatic Diseases. Ninth edition. Arthritis Foundation, National Office, 1314 Spring Street, N.W., Atlanta, Georgia 30309. 345 pages. Free copies are distributed to physicians nationwide and to every third-year medical student in the United States. Extra copies are \$20 each through local Arthritis Foundation chapters or the national office.

The **Primer** is a concise review of the rheumatic disease, with particular emphasis on clinical manifestations, pathogenesis, diagnosis, and management. Although it is primarily designed for medical students and physicians in postgraduate residency programs, it is also used extensively to augment education programs for hospital physicians and arthritis health professionals.

Pediatric Home Care: Results of a National Evaluation of Programs for Ventilator Assisted Children. Lu Ann Aday, Ph.D., Marlene J. Aitken, M.A.M.S., OTR/L., and Donna Hope Wegener, M.A. Pluribus Press, Inc., 160 East Illinois Street, Chicago, Illinois 60611. 444 pages. Softcover, \$34.95.

This study started during the Surgeon General's 1982 Workshop on Children with Handicaps and Their Families. The Division of Maternal and Child Health funded three demonstration projects to develop regionalized, comprehensive, coordinated systems of care. They also funded a comprehensive evaluation of the implementation and impact of those programs. This book is the result. More than 50 detailed and closely-analyzed tables and figures document its findings.

Job Coaching: In Supported Work Settings. Diane Fadely. Materials Development Center, Stout Vocational Rehabilitation Institute, School of Education and Human Services, University of Wisconsin-Stout, Menomonie, Wisconsin 54751. 148 pages. \$16.00.

This publication has been written to

support job coaches. It discusses the many roles and functions of job coaches in a variety of employment settings. Techniques and procedures that have been found to be effective in job coaching practice are discussed.

The author also covers personality characteristics and attitudes likely to lead professional trainers to be successful in job coaching roles. Discussions of self-concept, physical and emotional flexibility, and decisiveness are provided. Numerous forms, surveys and data sheets are included.

Thinking, Feeling, and Being. Ignacio Matte-Blanco. Routledge, Chapman & Hall (formerly Methuen), 29 West 35th Street, New York, New York 10001. 347 pages. Hardcover, \$37.50 (U.S.), \$49.00 (Canadian); soft cover, \$17.95 (U.S.).

The author examines the ways we conceive mental life, particularly the concept of an inner world of thoughts and feelings and the problems involved in thinking about it. The book attempts to offer a bridge between psychoanalytic and other modes of thought.

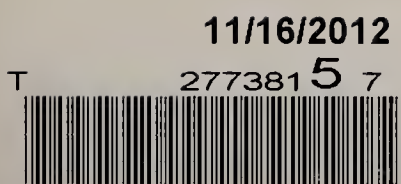
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